FREE SAMPLES UPDATED! **18GB** ARCHIVE LIBRARY + **2** EXCLUSIVE NEW PACKS

FutureMusic®

Issue 382
Making the future since 1992

THE ART OF DJ MIXING

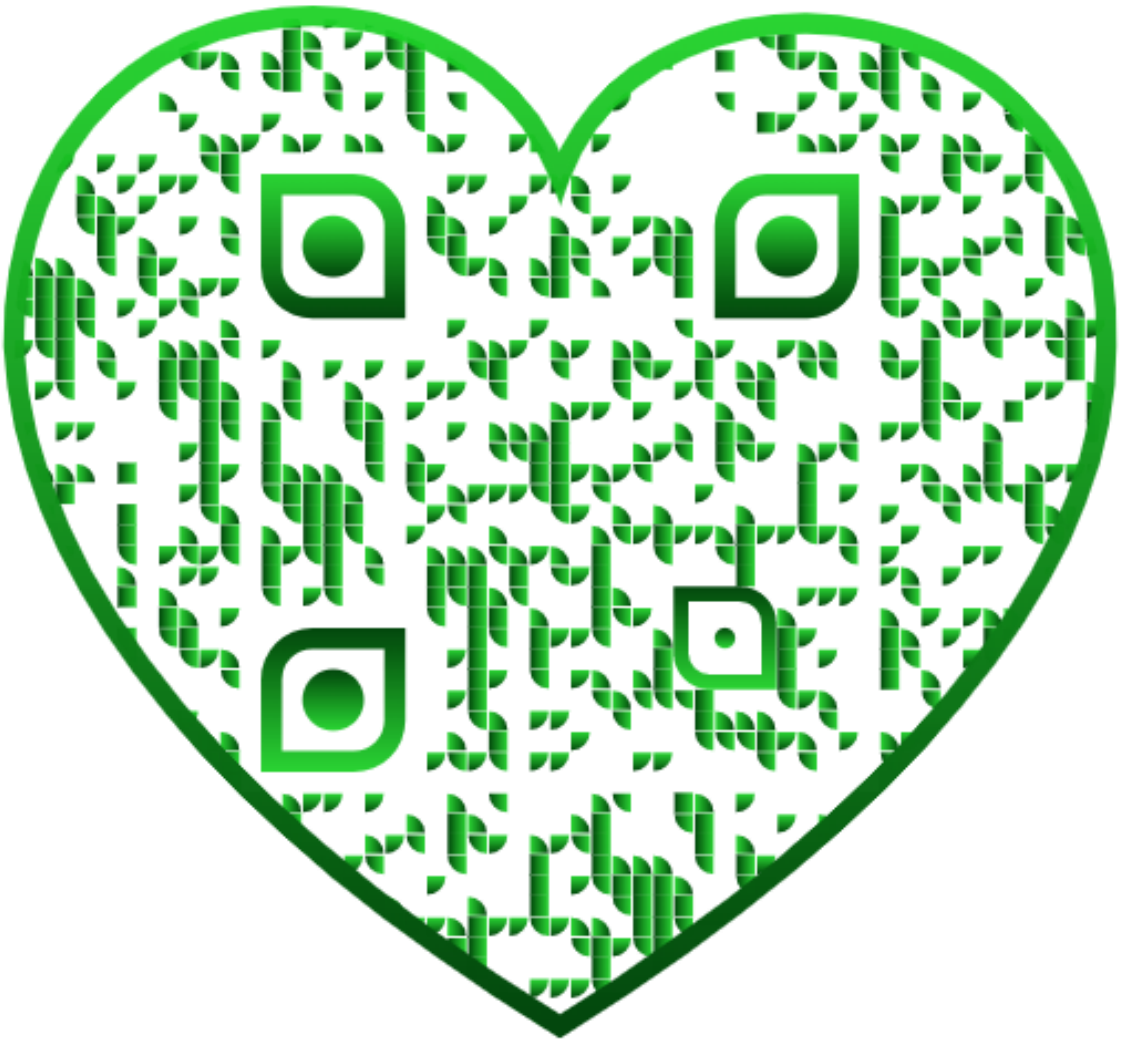
From creative transitions to streaming tips: become a better DJ with our **must-read** guide

IN THE STUDIO...
Jenny Hval
Louis La Roche
Gábor Lázár

INTERVIEW
LITTLE BOOTS
Talks ABBA's Voyage live show and her new LP

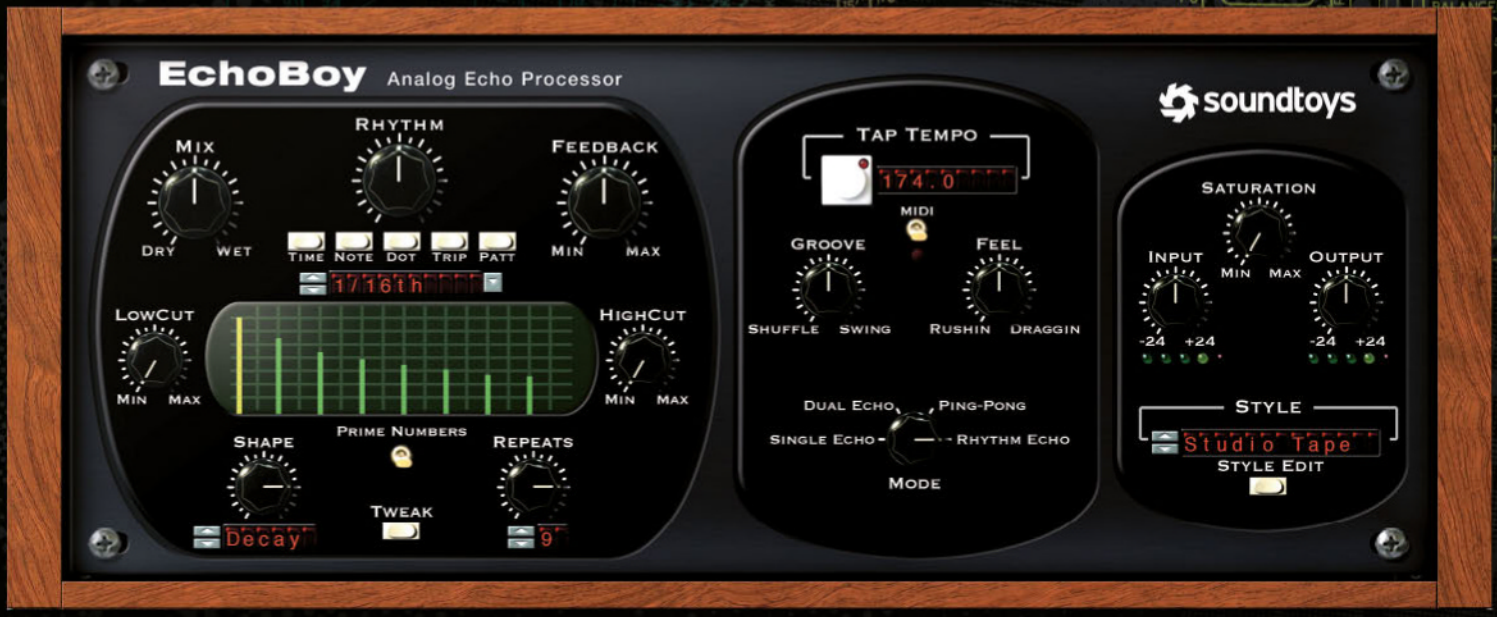
ON TEST
Steinberg Cubase 12
Analogue Solutions Fusebox X

FUTURE



EchoBoy

The Pro Standard for Delay



Take Creative Control

Insert decades of analog echo history into your mix with EchoBoy. Its luscious tone and 30 built-in echo styles have made it the go-to effect for top producers, engineers, artists and sound designers.

The EchoBoy sound has made its way into countless hit songs, movies, and games - and it will find its way into every corner of your mixes. We promise.

Reg $199. Worth Every Penny.

" I use EchoBoy on almost every mix for slap, doubling, long delay and stereo size. It's so adaptable that I can always get what I want - quickly."

Bob Power
Record Producer & Mix Engineer

A Tribe Called Quest, Erykah Badu, Citizen Cope, D'Angelo, De La Soul

soundtoys

30-day Free Trial at soundtoys.com

TRACKTION.COM

f.'em

A RAUCOUS JOURNEY THROUGH FM SYNTHESIS

90 DAY DEMO

VST AU AAX

MAC PC LINUX

"F 'EM TAKES FM SYNTHESIS TO THE NEXT LEVEL. I ENJOY THE SONIC AND MODULATION CAPABILITIES PROVIDED IN ITS METICULOUS AND THOUGHTFUL DESIGN. VIRTUALLY EVERY NOOK AND CORNER HAS BEEN CONSIDERED WITH HOW PARAMETERS CAN BE MODULATED. I LOOK FORWARD TO CREATING SOME GNARLY BASS SOUNDS WITH THIS BEAST."

STRANJAH HAS CEMENTED HIS POSITION IN THE BASS MUSIC WORLD WITH SEMINAL RELEASES ON METALHEADZ, 31 RECORDS, RENEGADE HARDWARE, & HOSPITAL RECORDS.

Start playing.
istanbul
Agop
jazz crash
special edition
Ableton

Mixed blessings

It's been a tough couple of years for DJs. The pandemic that derailed all of our plans throughout 2020 and 2021 hit the nightlife industry particularly hard. Clubs were some of the first places to close and one of the last things to reopen, and although we're almost back to normality now, the effects on the industry are still being felt.

It also changed the face of DJing somewhat. With clubs shut, many pro DJs went online – finding outlets to stream, mix and connect with an audience without being in the same room as them. While streamed DJ sets are nothing new, many artists who might previously have never heard of platforms like Twitch found themselves dealing with a fresh reality. This issue, we're here to help you update your DJing skills for 2022. Whether you're mixing in a club, on the airways or online, we'll update you on the need-to-know gear and techniques.

We hope you enjoy the issue.

Si Truss, Editor-In-Chief
simon.truss@futurenet.com

FutureMusic

Editor-In-Chief
Si Truss, simon.truss@futurenet.com
Reviews Editor, Music Technology
Simon Arblaster, simon.arblaster@futurenet.com
Features Editor, Music Technology
Matt Mullen, matt.mullen@futurenet.com
Managing Editor
Kate Puttick, kate.puttick@futurenet.com
Art Editor
Phil Cheesbrough, philip.cheesbrough@futurenet.com

CONTRIBUTORS
Danny Turner, Roy Spencer, Martin Delaney, Rob Redman, James Russell, Bruce Aisher, Oli Bell, Leo Maymind, Adam Lee, Olly Curtis, Robbie Stamp, Jon Musgrave, Greg Scarth, Richard Ecclestone

ADVERTISING
For Ad enquiries please contact:
Kyle Phillips, kyle.phillips@futurenet.com

MARKETING
Direct Marketing Executive: Will Hardy

PRODUCTION & DISTRIBUTION
Production Controller: Fran Twentyman
Production Manager: Mark Constance
Printed in the UK by: William Gibbons & Sons Ltd on behalf of Future
Distributed in the UK by: Marketforce (UK), 2nd Floor, 5 Churchill Place, Canary Wharf, London, E14 5HU **Tel:** +44 (0) 203 787 9001

CIRCULATION
Head of Newstrade: Tim Mathers

SUBSCRIPTIONS
Order line and enquiries: +44 (0)330 333 1113
Online enquiries: www.magazinesdirect.com
Email: help@magazinesdirect.com

INTERNATIONAL LICENSING AND SYNDICATION
Future Music is available for licensing and syndication. Contact the Licensing team.
Head of Print Licensing: Rachel Shaw, licensing@futurenet.com

MANAGEMENT
Brand Director, Music: Stuart Williams
Content Director: Scott Rowley
Global Head of Design: Rodney Dive
Head of Design (Music): Brad Merrett
Group Art Editor: Graham Dalzell

Future Music, ISSN 0967-0378 November issue 376, is published monthly with an extra issue in December by Future Publishing, Quay House, The Ambury, Bath, BA1 1UA. UK

The US annual subscription price is $197.60. Airfreight and mailing in the USA by agent named World Container Inc, c/o BBT, 150-15 183rd St, Jamaica, NY 11413, USA. Application to Mail at Periodicals Postage Prices is Pending at Brooklyn NY 11256.
US POSTMASTER: Send address changes to *Future Music*, World Container Inc, c/o BBT, 150-15 183rd St, Jamaica, NY 11413, USA
Subscription records are maintained at Future Publishing, c/o Air Business

FUTURE
Connectors. Creators. Experience Makers.

Future plc is a public company quoted on the London Stock Exchange (symbol: FUTR)
www.futureplc.com

Chief executive **Zillah Byng-Thorne**
Non-executive chairman **Richard Huntingford**
Chief financial officer **Penny Ladkin-Brand**
Tel +44 (0)1225 442 244

We are committed to only using magazine paper which is derived from responsibly managed, certified forestry and chlorine-free manufacture. The paper in this magazine was sourced and produced from sustainable managed forests, conforming to strict environmental and socioeconomic standards. The manufacturing paper mill holds full FSC (Forest Stewardship Council) certification and accreditation

All contents © 2022 Future Publishing Limited or published under licence. All rights reserved. No part of this magazine may be used, stored, transmitted or reproduced in any way without the prior written permission of the publisher. Future Publishing Limited (company number 2008885) is registered in England and Wales. Registered office: Quay House, The Ambury, Bath BA1 1UA. All information contained in this publication is for information only and is, as far as we are aware, correct at the time of going to press. Future cannot accept any responsibility for errors or inaccuracies in such information. You are advised to contact manufacturers and retailers directly with regard to the price of products/services referred to in this publication. Apps and websites mentioned in this publication are not under our control. We are not responsible for their contents or any other changes or updates to them. This magazine is fully independent and not affiliated in any way with the companies mentioned herein.

If you submit material to us, you warrant that you own the material and/or have the necessary rights/permissions to supply the material and you automatically grant Future and its licensees a licence to publish your submission in whole or in part in any/all issues and/or editions of publications, in any format published worldwide and on associated websites, social media channels and associated products. Any material you submit is sent at your own risk and, although every care is taken, neither Future nor its employees, agents, subcontractors or licensees shall be liable for loss or damage. We assume all unsolicited material is for publication unless otherwise stated, and reserve the right to edit, amend, adapt all submissions.

Widely Recycled
ipso. For press freedom with responsibility

FM CONTENTS

34

IN THE STUDIO WITH...

Louis La Roche

The UK producer on his love of hardware synths and finally creating his authentic disco album

ISSUE **HIGHLIGHTS**

68

REVIEWED

Steinberg Cubase Pro 12

Does this latest DAW update have what it takes to please its varied user base?

14

Filter
Cherry Audio DS-1

78

Review
KRK KNS Series

18

Classic album
Fred Everything

56

Interview
Little Boots

90

Testbench
United Plugins Mirror

51

Producer's Guide to…
Roland JD-08 & JX-08

REVIEWS

68 Steinberg Cubase Pro 12
72 Analogue Solutions Fusebox X
75 ADDAC System 308

76 Akai MPK Mini MK3

78 KRK KNS Series headphones
80 Austrian Audio CC8 Stereo kit
82 Gibson Maestro effects pedals
86 Arturia Efx Fragments
88 Excite Audio Lifeline Expanse
90 **Testbench:** United Plugins Mirror
92 **Longterm test:** Behringer Pro-1
94 Sounds and Samples

INTERVIEWS

44 JENNY HVAL
56 LITTLE BOOTS
64 GÁBOR LÁZÁR

16 TALKING SHOP
CASUALLY HERE

REGULARS

12 **Filter:** The latest news
18 **Classic Album:** Fred Everything, *Light of Day*
22 **SAVE MONEY** on a print or digital subscription to *Future Music*

24 Album reviews

51 **Producer's Guide to…** Roland JD-08 and JX-08 Boutiques

62 Retrospective:
Bassline

SOCIAL

Find us online at
futuremusic.co.uk

Watch our videos
youtube.com/futuremusicmagazine

Follow us on Twitter
@futuremusicmag

Join us on Facebook
facebook.com/futuremusicmagazine

44

IN THE STUDIO WITH...

Jenny Hval

The Norwegian experimenter on synths, mics and getting obsessed with EQ

ACCESSING YOUR **BONUS DIGITAL CONTENT**

musicradar.com/how-to/future-music-382-downloads

Head to the link above to grab the latest samples and downloads!

By Future Music published 3 minutes ago

Download and stream the bonus content to accompany the April 2022 issue of FM

(Image credit: Future)

Answer three questions to unlock your download content to accompany Future Music issue 381.

IN THE **ARCHIVE – UPDATED!**

FM's Sample Archive gives you over 18GB of royalty-free sounds. **Here's what's inside...**

ARCHIVE CLASSICS

AMBIENT SOUNDS PT.1
- '90s Ambient (562 samples)
- Ambient Dawn (490 samples)

AMBIENT SOUNDS PT.2
- Majestic Bells & Mallets (444 samples)
- Spring Reverb & Tape Delay (533 samples)

ATMOSPHERES & BACKGROUNDS
- Atmospheric Beds (369 samples)
- Noise, Crackle & Hiss (512 samples)
- Sounds of the City (371 samples)

BASS BUNDLE
- Amped-Up Bass (234 samples)
- Sub-Frequency Grooves (256 samples)

ESSENTIAL DRUMS
- 808 and 909 (39 samples)
- Ultimate Cymbals (503 samples)
- Ultimate Kick Bundle (505 samples)
- Ultimate Snares & Claps (676 samples)
- Vintage Drum Machine Hits (548 samples)

FOUND FAVOURITES
- Mechanical Sounds (390 samples)
- Out There FX (500 samples)
- Studio Noise (234 samples)
- The Edge Of Noise (512 samples)
- The Sound Of Water (375 samples)

FUTURE DRUMS
- Beyond Breakbeats (186 samples)
- Digital Percussion (502 samples)
- Electro FX (321 samples)
- Granular Drums (499 samples)

FX & TRANSITIONS PT.1
- Filter Fun (496 samples)
- Gates 'N' Sidechains (287 samples)
- Total Transitions (260 samples)

FX & TRANSITIONS PT.2
- Destroyed synths (519 samples)
- Sci-Fi FX (501 samples)

HIP-HOP, FUNK & SOUL
- Cosmic Soul (386 samples)
- Funk Keys (279 samples)
- Hip-Hop Drum Machines (387 samples)
- Minimal Hip-Hop (540 samples)

HOUSE & TECHNO
- Chicago House (537 samples)
- House & Techno Stabs (213 samples)
- Jacking House (518 samples)
- Warehouse Techno (575 samples)

PERCUSSION
- Modular Percussion (510 samples)
- Shakers, Tambs & Toplines (503 samples)
- Sticks, Knocks & Rims (502 samples)

MORE BEATS
- '80s Pop Drums (197 samples)
- Dub Percussion 2 (537 samples)
- Jazz Drums (499 samples)
- Total Snares (501 samples)

TRANCE & RAVE
- Classic Breakbeats (371 samples)
- Rave Synths (524 samples)
- Trance Tools (537 samples)

NEW PACKS

'70S SYNTHS
- '70s Synths Pt 1 (102 samples)
- '70s Synths Pt 2 (192 samples)

'80S SYNTHS
- '80s Synths Pt 1 (265 samples)
- '80s Synths Pt 2 (279 samples)

'90S SYNTHS
- '90s Synths Pt 1 (414 samples)
- '90s Synths Pt 2 (411 samples)

'00S SYNTHS
- '00s Synths Pt 1 (308 samples)
- '00s Synths Pt 2 (188 samples)

DRUM HITS
- Analogue Drums (311 samples)
- Rims 'n' Things (549 samples)
- Resonator Percussion (502 samples)
- Hats, Cymbals & Gongs (280 samples)

LO-FI TOOLS
- Clips, Skips and Glitches (497 samples)
- Tape World (499 samples)
- Lo-fi Acoustic (277 samples)

ETHEREAL FX
- Digital Nature (255 samples)
- Clouds & Air (496 samples)

TECHNIQUE **& FEATURES**

26

The Art of DJ Mixing

Digital technology has changed the face of DJing, but the fundamental skills remain the same. Brush up with our guide!

EXCLUSIVE **SAMPLE PACKS**

Old School Euphoria

CYCLICK SAMPLES PRESENT...

The hands-in-the-air sounds of '90s trance and rave are back in vogue. Stock up on euphoric riffs with our latest bundle!

Swung & Skippy

GROOVE CRIMINALS PRESENT...

Channel the loose grooves of UK garage with this pack of heavily swung, groove-infused loops, licks and lines

BONUS **SAMPLES** DOWNLOAD AT MUSICRADAR.COM/HOW-TO/FUTURE-MUSIC-382-DOWNLOADS

01

02

03

04

loopmasters

loopmasters.com

01 **Tonekitchn** RnDrill
02 **Looptone** Hip-hop Keyboard Chops
03 **ZTekno** Technical Support Tewch House
04 **Dabromusic** Ekselent Drum and Bass Samples
05 **Loopmasters Pres.** Science of Sound Deep Electronica
06 **IQ Samples** Future Dance Hitmaker

05

06

evo
AUDIENT

evo 8

Work smarter not harder

4 x EVO Mic Pres | High Performance Converters | Smartgain | Smart Touchpoints | JFET Instrument Input

2 x Speaker Outputs | 2 x Headphone Outputs | Ultra-Low Latency | Software Mixer | Audio Loop-back | USB 2.0

Roland
FANTOM 06
A001:Homecoming
EDIT
SCENE SELECT
MASTER FX
MOTIONAL PAD
DAW CTRL
MENU
SCENE
SELECT
CHAIN
ZONE VIEW
SINGLE TONE
TEMPO
PHONES
MAIN OUT
SUB OUT
MIC/LINE INPUT
PAN/LEVEL
CTRL
ASSIGN
ZONE SELECT
CHORD MEMORY
ARPEGGIO
OCTAVE
SPLIT
TRANSPOSE
WHEEL 1
WHEEL 2

Fantom-0 promises "non-stop" music

Roland's featherweight '0' series synth workstations pack heavyweight specs

Roland have released the Fantom-0 series, which contains lighter, streamlined and more affordable versions of their flagship Fantom synth workstations. There are three models – Fantom-06, -07 and -08 – each of which is designed for use in the studio and on stage.

Fantom-0 is designed to bring Roland's top-tier tech to a new audience, with each model in the range featuring thousands of the best sounds that the company has to offer. You also get a colour touchscreen, hands-on controls and deep computer integration.

Sounds are powered by three Roland engines – ZEN-Core, SuperNATURAL and Virtual ToneWheel Organ – and further expansions are available via the Roland Cloud. These include emulations of Roland synth classics such as the JX-8P, SH-101, Juno-106 and Jupiter-8, plus n/zyme, the new wavetable instrument.

As well as the synth sounds, the Fantom-0 is also stuffed with acoustic tones, and users can create custom creative spaces known as Scenes. These can contain sounds, patterns, performance layouts, song sections and more, and you can switch between them seamlessly.

Other features include RGB performance pads, quick sampling and a clip-based sequencer, ensuring that you can do an awful lot of production on just this one keyboard.

When the time comes to incorporate Fantom-0 into your production setup, it can serve as a 4x32 USB audio interface, and offers native integration with Logic Pro, MainStage and Ableton Live. This includes touchscreen control.

The 61-note Fantom-06 and 76-note Fantom-07 come with newly developed synth action keyboards, while the Fantom-08 has 88 weighted-action keys. Other than that, all of the models are identical, with each promising to be "ultra-rugged" and therefore suitable for life on the road.

The Fantom-06, Fantom-07 and Fantom-08 will be available in April priced at $1,500, $1,800 and $2,000 respectively. **FM**

Cherry Audio's Dreamsynth is inspired by '80s analogue/digital hybrids

Now firmly established as an emulator of classic hardware synths, Cherry Audio have announced their first original virtual instrument: Dreamsynth.

Despite being a new design, this is heavily inspired by the hybrid digital/analogue synths of the mid to late-'80s – the likes of the Sequential Circuits Prophet VS and Ensoniq ESQ-1. Cherry Audio say that they've taken the "distinctive qualities" of these instruments and combined them with the best features of modern software to create a unique 21st century hybrid.

There are three dual-waveform oscillators, equating to six simultaneous virtual analogue or PCM sample-based oscillators with up to 16 voices of polyphony. As an added bonus, you also get an additional 16-voice string synth that can be layered and split across the keyboard, independent of the primary synth.

The 12dB/octave multimode stereo filters, meanwhile, are inspired by the Oberheim OB series, while modulation options include more than 20 sources and more than 40 destinations. There are also three tempo-syncable LFOs, an arpeggiator, effects and support for MPE.

Dreamsynth comes with more than 1,000 presets from a roster of pro sound designers, with programming of your own patches taking place on a vintage-style interface. It's available now for the intro price of €39 (usually €59) and runs on PC and Mac in VST/AU/AAX formats. **FM**

Brighton Music Conference announces first wave of speakers

Brighton Music Conference is set to return to the city's British Airways i360 venue on the 25-27 May, and the event has just announced its first run of speakers. Top of the bill are notable DJs and producers including Leftwing:Kody, Bushwacka, Max Chapman, Greg Wilson, Just Her and DMC World Champion JFB. FM will be returning to host a panel this year too – stay tuned for details!

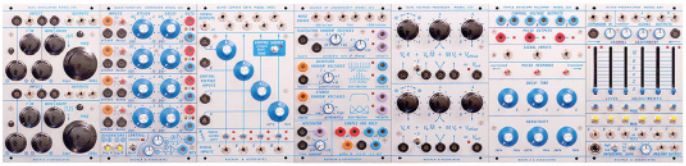
With a focus this year on getting 'back to the music', BMC will feature three days of panels and talks, plus networking events, parties and a specialised exhibition/tech and services zone. Tickets start at £50 for BMC Academy passes. Full details at: **brightonmusicconference.co.uk** **FM**

Buchla reissue their classic 200 series modules, which "defined West Coast synthesis"

Released in the '70s, Buchla's 200 series retains iconic status in the world of modular. Collectively known as 'The Electric Music Box', these modules showcased West Coast synthesis legend Don Buchla's deep explorations into more complex uses of voltage control. Now they're back in the form of the Buchla 200 Classic Reissue series.

The reissues retain the classic colour-coded patching system of the originals and have been created with the help of Roman Filippov of Black Corporation and Joshua Holley of Malekko/Dark Place. They're said to be "the most authentic and accurate recreations of the original Buchla 200 series ever made". They have been created using modern build techniques while promising to remain faithful to Don Buchla's vision.

The new modules will be assembled in the USA, with the first seven available pretty much right away. These are the Dual Oscillator Model 258, Quad Function Generator Model 281, Quad Lopass Gate Model 292 (rev c), Source of Uncertainty 266, Dual Voltage Processor 257, Triple Envelope Follower Model 230, and Mixer/Preamplifier Model 207. More modules are expected to be announced soon.



At between $799 and $999 a pop, it's fair to say that the reissued Buchla 200 series modules are for serious modular fans only, but despite the hefty price, we suspect they'll be in high demand. They're available on a first-come-first-served basis. FM

Apple's all-new Mac Studio looks like it'll be a music production monster

Apple regularly make tweaks to their Mac line-up, but now they've launched a brand-new model: Mac Studio.

A desktop computer, this is powered by either the existing M1 Max chip or the new M1 Ultra, and promises "an unprecedented level of performance, an extensive array of connectivity, and completely new capabilities in an unbelievably compact design".

First impressions are that Mac Studio is sort of like a super-powered Mac mini. It's built from aluminium and features an intriguing thermal design that incorporates double-sided blowers, airflow channels and more than 4,000 perforations on the back and bottom of the enclosure.

Apple are bullish about the Mac Studio's numbers; in the case of the M1 Max model, they're touting up to 2.5x faster CPU performance than the fastest 27-inch iMac with 10-core processor, and up to 50% faster CPU performance than the Mac Pro with 16-core Xeon processor.

The Ultra model, meanwhile, is capable of up to 3.8x faster CPU performance than the fastest 27-inch iMac with 10-core processor, up to 90% faster CPU performance than Mac Pro with 16-core Xeon processor, and up to 60% faster CPU performance than 28-core Mac Pro.

For connectivity, the rear of the Mac Studio offers four Thunderbolt 4 ports, a 10GB Ethernet port, two USB-A ports, an HDMI port, and a "pro audio" jack for high-impedance headphones or external amplified speakers. There are connections on the front, too – a couple of USB-C ports and an SD card slot.

The Mac Studio is complemented by the 27-inch Studio Display, with a 5K Retina screen, a built-in camera, a three-mic array and a six-speaker sound system. It's even got its own processor, the A13 Bionic chip.

Given its name, it's no surprise that Mac Studio is being targeted at music makers – Apple made a point of mentioning that it can "power the digital audio workstation they've been dreaming of" during the launch event – so we're looking forward to finding out if it can live up to its billing.

The Mac Studio and Studio Display are available to order now. Prices for the Mac Studio start at $/£1,999, while the Studio Display starts at $1,599/£1,499. FM

TALKING SHOP

Casually Here

"I'VE GOT A GOOD COLLECTION OF HARDWARE SYNTHS NOW SO I DON'T REALLY USE VST SYNTHS"

Producer, composer, sound designer and studio engineer Nic Nell records under the alias Casually Here and runs an independent label, Algebra Records. In producing his expansive, atmospheric opus *Possible Worlds*, he built new sonic worlds while questioning how we treat our own, exploring the existential risk that faces our environment through sweeping, transcendent electronica.
We spoke with Nic to find out more about the studio equipment and creative processes that lay behind the making of new album *Possible Worlds*.

When did you start making music?
"I was classically trained as a kid, singing in choirs, playing the clarinet and a bit of piano. As a teenager I learned to drum and started singing in a band. At university I picked up the guitar and started writing solo stuff, being really into artists like Regina Spektor, Joanna Newsom and Kaki King, which led to getting into live looping of voice and guitar, and my first synth – a Microkorg – and a copy of Ableton 5. I was progressively getting more into the production side of things and then when I heard Burial's *Untrue* for the first time, it was a game-changer, which led to me stepping away from singer-songwriting and making instrumental electronic music as Casually Here."

Tell us about your studio/setup.
"For the past 18 months my studio has been at home in the loft. I've got a good collection of hardware synths now so I don't really use VST synths anymore – though I did in the past. The big difference I've found with hardware versus software is that I experiment in ways I never did when using plugins. There's something about the higher stakes of having to capture stuff in the moment that forces you to commit. I also love hardware effects – external delays and reverbs – as you end up playing with the time (depitching etc) and using them in creative ways you never would in plugin form."

What DAW (or DAWs) do you use?
"I use Ableton. It was suggested to me years back, and on the first day of installing it I made two tracks from scratch which went on to be singles. I just found it really intuitive and really enjoy the flexibility in manipulating recordings and samples. It consistently got better and has become an increasingly powerful tool from an engineering point of view with the recent addition of takes and groups in groups."

What one piece of gear in your studio could you not do without, and why?
"My Roland Juno-6. It sounds amazing and I've got to know it well enough that it just feels like a second voice. I've used it on pretty much everything I've made since I got it. I really learned synthesis on it after years of using VSTs and other synths, as it's all one knob one function."

What was your latest purchase for the studio and why?
"A couple bits of serious outboard gear for mastering – the Overstayer Modular Channel 8755 DM and Great River MAQ-2NV Mastering EQ. The Overstayer is a distortion, filter, EQ, and compressor which can all be blended at the end so you can use it for subtle or brutal applications. I've been using it to dial in a saturated, characterful signal when mastering and then blending a little of that in with the clean signal. A friend was selling the MAQ, which is a serious bit of mastering gear which I wouldn't describe as fun but does sound great."

What dream bit of gear would you love to have in your studio?
"A big pair of ATC monitors and a large enough balanced studio to match. Maybe the SCM50s or SCM100s. I tried the SCM25s nearfields in the studio a few years back which are the best sounding nearfields I've ever heard with incredible resolution, stereo field and clarity in the mids in particular, but I couldn't quite justify the expense."

When approaching a new track or project, where do you start?
"I challenge myself to come up with new ways to generate jump-off points. I often start tracks whilst working on other projects – or open a project with sounds and effects set up that I'm enjoying, and start playing in that palette. I make loops out of field recordings to see what emerges and use the audio as samples.

"Recently I've been recording a load of arpeggiator takes from the Juno into a 4-track Tascam tape machine and then performing takes of that – playing with all the sliders/knobs etc into Ableton through the OTO Bam reverb – making a load of pretty wild, unpredictable sounds to then jump off from. I also have quite a lot of success writing just before bed when the stakes are low and the brain is starting to shut down."

Which one track has been most influential on your work?
"Jon Hopkins' *Open Eye Signal* was a real game changer for me when I heard it. It opened my eyes to the potential of dance music as an art form in ways that I hadn't experienced before, with a combination of visceral physicality and attention to detail, and continues to be up there as one of my big ones."

What are you currently working on?
"My most ambitious record to date, *Possible Worlds*, is out on April 1st and I'm working on my live show for it. I'll be finishing up the followup as well as working on a more ambient album and I've just remixed some work by the band Art School Girlfriend. I'm also currently working on an experimental collaborative album with the composer Sami El-Enany, as well as lots of the usual mixing, mastering and releases on my own label Algebra Records." FM

WANT TO KNOW MORE?

Casually Here's album *Possible Worlds* is available now on Algebra Records

Generate new musical ideas in Ableton Live

How can I create interesting rhythmic basslines?

Basslines are so often the backbone of a track, particularly one we want people to dance to. Creating movement in our basslines can elevate certain sections or the entire composition, but sometimes we aren't confident to perform these parts live, and we end up sticking to basic or less adventurous patterns rhythmically.

Commonly a great bassline is one that is playful against our drums or percussion, either locking in with them directly, or holding its own with a countering flow. The following simple technique is one that both generates great bassline ideas, but also encourages us to use our library of samples in a different way. If two percussive grooves work well together, then who says they both have to be percussion?

This technique will look at how Live's Audio to MIDI can transform the groove of a percussive instrument into a tonal instrument, and remind us that we can take inspiration from anywhere in Live's browser. This can also be helpful to encourage you to take more risks with jumps between musical notes, as Drum to MIDI conversion is laid out a little differently to melodic MIDI conversions.

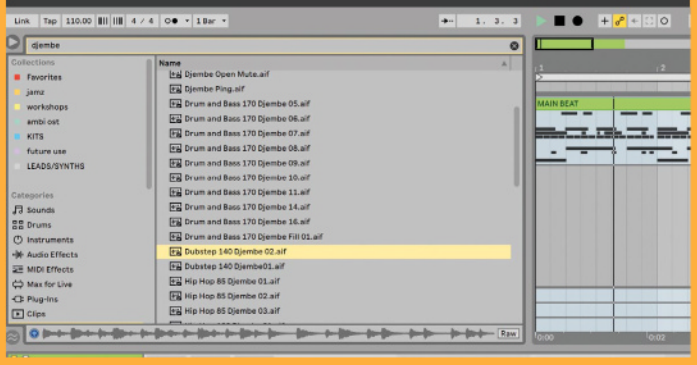
ABOUT THE AUTHOR

Pops Roberts is a producer, vocalist, DJ and Ableton certified trainer based in Manchester. She currently fronts and produces with the band Lovescene with past collaborative work including Wolf Music, The North Quarter, Swing Ting and many more

01

Find your counter-beat

Once you have your main drum beat made, loop it using [CMD+L] and audition (single-click) percussive loops in your browser during looped playback. Select one that works well with your beat, but isn't identical



02

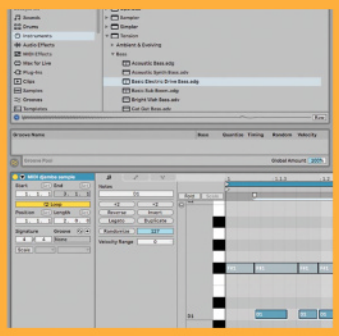
Convert the audio to MIDI

Drag and drop the new sample below the beat into a new audio track. Now, right-click the audio clip itself. Select "Convert Drums to New MIDI Track".

03

Assign the bass

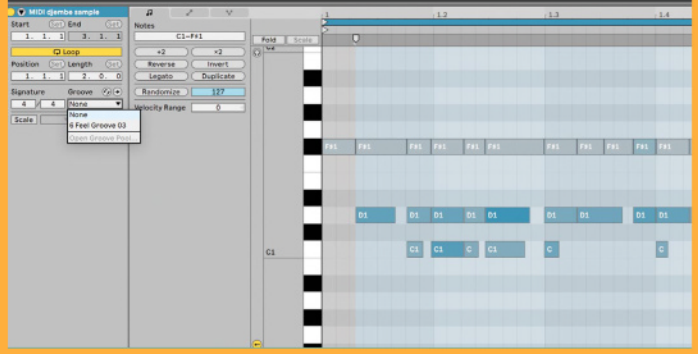
In the new MIDI track, re-assign the new MIDI track's instrument to a chosen bass sound by highlighting the track's title bar and double-clicking your bass in the browser.



04

Edit the notes

Now you can hear it as a bass instrument, you can edit your notes to the right key, and delete or nudge notes as you see fit! Optionally, try applying grooves or quantise with some swing to add further spice to your bass.



Fred Everything
Light of Day

20:20 Vision, 2004

"It was the 'difficult second album'," chuckles deep house dude, Fred Everything. He can laugh now, but that phrase was a spine shiverer, back in the day. "It was a miracle that it even came out," he adds. "That's why it's called *Light of Day*, because we never thought it'd see it!"

Thankfully it did. A combination of label whip cracking, over-reaching ambition, and sheer perseverance saw to that. After his well-received debut in 2000, Fred wanted to up his game and start recording musicians. He was an artist now. Better act like one. "That first album was all samples," he says. "Now I wanted to create my own."

There was a steep learning curve, though. He'd never recorded anyone. "I didn't even know how to communicate with them to get what I wanted," he says. "It wasn't easy at all." But, the trick to doing it, is doing it. As Fred can attest. "There was a lot of experimenting," he says. "And working with new people in new ways forces you to get better."

Slowly he got more comfortable with recording everyone from virtuoso flamenco guitarists to imposing reggae vocalists (and their mildly excessive entourages). Not to mention taking that odd slice of crushing criticism from the top brass at the 20:20 Vision label, who would be putting the thing out.

"A lot of the original tracks just weren't right," says Fred. "I would be spending money on getting a guitarist or something like that, and then present them to the label. [Founder] Ralph Lawson was being a little bit more difficult with the material that I was showing him, but it did push me to try harder, and ultimately make better music."

After four years of fine-tuning, the released LP would rack up 'Album of the Year' gongs, with some reviewers even gushing that it had all the makings of a classic dance album.

"Everyone needs a difficult second album," concludes Fred. "I mean, we're talking about it nearly 20 years later, so I'm happy… now *[laughs]*".

Words by Roy Spencer

Track by track with **Fred Everything**

Fred Everything continues his 25-year-strong time in the game with more heat on the horizon. Watch Compost Records for *Kafoiyé*, his collabo with Trevor Walker and Diabel Cissokho. His very own Lazy Days label for *Stay A While*, co-produced with Atjazz. And *The Time is (Now)* EP and *25 Years of Fred Everything* Compilation. Plus, album #5 by the end of the year. And imminent remixes of Groove Armada's *Talk Talk*, Inkswel's *Why Won't You*, and Milton Jackson and Matt Masters' *Viaggio*.

In

"This is the intro of the album, using my friend Rise Ashen's acapella from the title track. I remember these were the early days of using more computer technology and my first DAW that had audio. That was Cubase SX. I was previously on Cubase Atari. The guy who came to install my internet at my house was a fan of electronic music, so we became friends and he brought me two CDs full of 'free' plugins and VST instruments. I used NI Spektral Delay on this one."

Light Of Day feat. Rise Ashen

"I brought in my friend Rise Ashen [Eric Vani] from Ottawa to sing on this one. He brought his bass so we also recorded the bass on this.

"There was definitely a Latin influence to this. Drums would've been mostly my EMU ESI-32, and a lot of keyboard sounds came from the Roland RS-5. A kind of poor man's Motif or Triton with lots of Rhodes, organs, strings and fake synths sounds. I think I also used some of the drum kits on it. When Eric left, I looped two bars from our session and started the house version which featured on the 12" of this."

Winter Blues

"This might be the only sample-based track of the album. It was extremely simple and came together quickly. I actually used ACID for this one, which I never used to use. I have a feeling I may have finished this in Cubase SX, after.

"Even today, if I start something in Ableton, I usually finish and mix it in Logic. I think the drums came from Brass Construction, maybe? I don't want to jinx myself by revealing the main sample, but it's an orchestral jazz record from one of my favourite producers ever. The spoken word bit comes from a jazz documentary by Ken Burns."

For Your Pleasure feat. Karl The Voice

"I used to spend a lot of time in France, especially Paris, and made a lot of friends there. They were the golden years for French deep house with Gregory, Jabre, DJ Deep... labels like Basenotic, Basic… And it was the early days of making music on the road. I bought my first laptop, an old Toshiba which was quite thick, and I installed Reason on it. I wrote a lot of sketches on it. One of them was the basis for this track.

"My friend Stephane took me to La Plage Studio to meet up with Karl The Voice, and we recorded this vocal. Looking back, the backing track is definitely influenced by tracks like Charles Webster's (as Presence) *Better Day*.

"This one still gets mentioned to me whenever people say, 'I like your early stuff!'"

Close To You feat. Judah Singer

"I definitely feel like an imposter for this one, but I always loved dub and reggae without knowing enough about the culture. This is something that changed lately as I read books and have been digging deeper in the history of this music.

"I'd met Judah Singer (actually he called himself Singer Judah) from St-Vincent, but living in Montreal, through my friends from the street art collective HVW8. The first time I met him and recorded with him was very intimidating. He showed up late with a lot of friends and a spliff stuck in his beard and a look that said, 'Who are you and what do you want from me?'. But, the truth is, he was a very warm-hearted man and we got to know each other.

"The real work had started after they left. I probably spent months on little details for this one. I'm pretty sure I used a Space Echo for some of the effects on it. I had the RE-150 then. I also played the melodica on it and there are a few vocal cameos by me there as well (the gated 'ahhhh' in the back).

"A few local musicians also played on it. There was Dylan Kell-Kirkman on bass, Luc Lemire on sax and Cécile Doo-Kingué on guitar. I remember recording Cécile through a Moogerfooger Phaser. These had such a nice distortion to them. The synth bits were probably either Juno 106 or SH-101. And I can hear some of that Waldorf D-Pole plugin and Orange Vocoder."

Find Your Way feat. Rise Ashen

"Another one that's featuring Rise Ashen, going through the very recognisable Orange Vocoder and GRM Tools, which I was using a lot. He also brought his balalaika instrument that you can hear on it. I think that this one was mostly done in-the-box.

"There was a very nice LinnDrum plugin that I think was only available on PC, and the TC Mercury plugin for the bass. An emulation of the SH-101. This one was inspired by one of my B-sides, *Here (Now)*. I was probably listening to a lot of Metro Area then too! Rob Mello remixed that one."

"My first album, *Under The Sun*, had an organic feel to it, but didn't use any real live musicians. I felt I had to step up my game for this one and record a lot of musicians and singers for it. It turned out to be a real challenge. From learning to record and direct people, hard disk recording, editing… I even built a small vocal booth in my loft."

Elevate feat. The New Mastersounds

"The original would most likely have been a Reason sketch too. A little reminiscent of the remix that I'd done for Jaffa back then. A simple, breaky affair. Ralph Lawson suggested that we should be using this funk band from Leeds he knew called The New Mastersounds. They basically replayed most of the instruments live and then I adapted it to the original song.

"We never got to meet, but I ended up remixing one of their tracks in exchange, featuring a then-unknown Corinne Bailey Rae. The Rhodes chords probably came from my E-mu ESi32. I loved the filters on this unit. Maurice Fulton did an incredible mix of this tune on the Remix 12" too."

Our Love

"I used to play at Back to Basics at The Mint in Leeds. One time, I had a white label of Basement Jaxx's *Rendez-Vu*. I did a quick beat mix in, then that drop, and boom… to this day one of my favourite DJ moments. It gave me the idea to do a Flamenco house tune. Although this one doesn't come close to *Rendez-Vu* on the dancefloor.

"It was a very problematic tune to make. I don't know how many guitarists I recorded before I finally got a take I liked. Again, one of those imposter moments. What was I even doing recording flamenco guitar? Christian Legault was the one who came correct on it and Luc Lemire did a small sax bit. There was a male vocal chant I recorded, but decided to go with poetry from a movie."

That Thang feat. DJ Heather

"DJ Heather was a friend and DJ hero of mine. The original came out on a 12" and was more tracky. Heather recorded this in Chicago with the help of my friend Johnny Fiasco as engineer. I made a more jazzy version for the album. Sounds like Lounge Lizard Rhodes plugin and possibly MPC-2000 drums.

"Heather has said she recalls doing her vocals at Johnny's studio. She didn't have a proper setup of her own at that time.

"I sent her the track and basically asked her to do that 'Heather thing', which we defined as breathy vocals and spoken word bits. She'd just done some singles with Swirl People; I was looking for something that was a bit like that."

Next To Me feat. Roy Davis Jr.

"This one came out previously on Bombay Records, but they gave us the rights for the album as it was done around the same time and seemed to fit the whole story. Roy and I became friends through his Bombay collaborations. I used to do a lot of remixes for them and I'd remixed *Watch Them Come* and *Cherish* by him. I remember he especially loved the bootlegs I did back then [Erykah Badu, Outkast, Missy Elliott…] and every time there was a new bootleg he was asking me, 'Did you do that one?'

"Sounds like I used the GRM Tools again on his vocals. The Rhodes are again the Lounge Lizard and a lot of TC Mercury for the synths. I had a real Rhodes and SH-101, but felt like using the plugins then. Things have changed!"

Not A Club Song feat. Joseph Malik

"Another one who started as an instrumental until I got in touch with Joseph Malik through a common friend of ours called Nikki in Edinburgh. I was a big fan of Joseph's voice and had remixed his track *Silent Fools* on Compost.

"A lot of odd little samples in this one. I can't quite figure out where they came from. I know some of them were from a live recording of an Afrobeat concert I picked up in a street sale and dropped the needle at a few random places while playing the song in the background and hit record and it sounded great.

"Jimpster remixed this one later on for an EP. Joseph came to Montreal to play at the Jazz Festival and we got to hang out. I remember feeling lucky to spend time with him. We're still in touch now and talking about doing a new collaboration."

Out

"The outro, featuring bits from *Next To Me*, some reversed synths and vocals from *Light Of Day*. It was a quick way to say goodbye!" FM

WANT TO KNOW MORE?

For all Fred's newest tracks, live mixes, and links to his socials, hit up: **soundcloud.com/fredeverything**

In the studio with Fred Everything

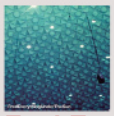
"For this album I was using some Event 20/20 and Yamaha NS10 monitor speakers. Then an Emu ESi32 synth, which you can hear on tracks like *Elevate*. It had amazing filters. And then the mixing console was a Soundcraft Ghost 32. I had a AKG Solidtube mic and an old Focusrite Platinum Penta unit. A budget preamp with compressor presets!

"There was also some Fender Rhodes piano in there, some Roland Juno-106, some SH-101, a Roland RS-5, and Korg MS2000.

"Software-wise I would have been using Native Instruments' Spektral Delay, TC's Mercury plugin for bass bits, GRM Tools, and Steinberg's Cubase SX.I used ACID for one track. Oh, and the Lounge Lizard EP-4 plugin for synth piano stuff.

"Some drums came from the Akai MPC-2000, and a little Space Echo for the dub styles on *Close To You*. Then a bit of the Waldorf D-Pole plugin and the classic Orange Vocoder to round it out."

LIKE IT? TRY THESE...



Fred Everything
Under The Sun

2000 debut built up from samples from his collection, including percussive disco grooves, and mid-'80s b-boy electro. Dancefloor certified stuff.

ADD THESE TO YOUR PLAYLIST:
'Let You Down', 'Another Soul', 'Huggin 'N' Kissin"

Metro Area
Metro Area

This crew's clashed electro sound lit up clubs as Fred was in the studio working on tracks like *Find Your Way*.

ADD THESE TO YOUR PLAYLIST:
'Dance Reaction', 'Atmosphrique', 'Machine Vibes'

Various
Basenotic's Guest List

A label that typifies the 'golden era of French Deep House', and an influence on *Light of Day*.

ADD THESE TO YOUR PLAYLIST:
'Don't Hold Back (Your Love)', 'Izabelle', 'Sweet Soul (Latin Soul)'

The New Mastersounds
Be Yourself

Leeds-based funk outfit that show up with the goods on this 2003 album. No wonder Fred got them on a track.

ADD THESE TO YOUR PLAYLIST:
'Your Love Is Mine (Feat. Corinne Bailey Rae)', 'This Aint Work', 'Cant Hold Me Down'

Fred Everything
No Way Home

Fred's 2019 album got the full remix treatment last year from the great and good in his phone book. Quality re-rubs all 'round.

ADD THESE TO YOUR PLAYLIST:
'Space Time (Atjazz Galaxy Aart Remix)', 'Palma (Ilija Rudman Expression)', 'Barbarella (7am In Tisno Dub)'

AUDIO TENT
SEQUENT
MOOG SUB 37 PRESETS
SUB 37
WWW.AUDIOTENT.COM

LIMITED TIME OFFER
ENDS 1ST JUNE 2022

SUBSCRIBE TO FutureMusic®

TODAY AND GET

3 ISSUES FOR £5

AND GET THESE SUBSCRIBER BENEFITS...

Pay just £1.67 an issue | **Save money on the shop price** | Delivery straight to your door or device

+ **NEVER MISS AN ISSUE!**

CHOOSE YOUR PACKAGE...

PRINT

Get the print edition delivered to your door every month, PLUS access to Future Music's FileSilo to download videos, samples, tutorial files, and more

only **£5***

FOR THREE ISSUES

PRINT + DIGITAL

Get the print edition delivered direct to your door, instant access on your iPad, iPhone and Android device PLUS access to Future Music's FileSilo

only **£5***

FOR THREE ISSUES

SUBSCRIBING IS EASY. JUST HEAD TO...

www.magazinesdirect.com/fmu/A28B

or call 0330 3331113 and quote 'A28B'

Terms and Conditions. Offer open to new UK subscribers only. *After your first 3 issues, your subscription will continue at £18.75 (print only), £22.50 (print + digital) by 6 monthly Direct Debit. Please allow up to six weeks for delivery of your first subscription issue. The full subscription rate is for 12 months (13 issues) and includes postage and packaging. If the magazine ordered changes frequency per annum, we will honour the number of issues paid for, not the term of the subscription. For full terms and conditions, visit www.magazinesdirect.com/terms. For enquiries and overseas rates please call: +44 (0) 330 333 1113. Lines are open Monday- Friday 9am- 5pm UK Time or e-mail: help@magazinesdirect.com. Calls to 0330 numbers will be charged at no more than a national landline call, and may be included in your phone provider's call bundle. **Offer closes 1st June 2022.**

© Chelone Wolf

J-Shadow
Final Departure

Keysound Recordings

Enigmatic London-based producer J-Shadow's music is at once cerebral, spaced out, instinctive and energised. Rooted in the traditions of UK bass music, but constantly breaking its confines to approach it from an other-worldly trajectory, J-Shadow's productions tread that line between heady, 4am home listening and charged, club-focused cuts with aplomb. His debut album, *Final Departure,* once again finds that perfect balance. The opening track is a huge, widescreen expanse that feels introspective but all-knowledgeable, like approaching Earth from the dark depths of outer space, but by track 2, we're already up-close to tough breaks, deep, grumbling bass and a patchwork of cold, industrial FX. This jostling between mindsets and tones is a permanent feature of the record, indulging your sense of breaking off from reality and drifting into some astral yet inner universe, before pulling you straight back down into modern life, people and familiar spaces. London-centric influences are all there to see, as J-Shadow cross-pollinates elements of grime, jungle, drum & bass, hip-hop, electronica and two-step, but it is testament to his skill and ingenuity that he shapes a soundscape that is so futuristic, unfamiliar and distinctive. Its expertly crafted rhythm structures sound and feel like the product of instinct, but are meticulously formed to build this subtle, but surging energy that runs throughout. It's an intoxicating mix of tripped-out, almost-meditative ambience and the chaotic stylings of UK bass music and it's that unpredictability that makes *Final Departure* such an enthralling journey. ***Tom Jones***

ADD THESE TO YOUR PLAYLIST:

Parallel Worlds, Chronic (The Ascent), Altered Memoirs

9/10

ALBUM OF THE MONTH

FLOCK
Flock
Strut Records

London's jazz and experimental scene has been riding a new wave of innovation for years now. New, exciting artists arrive with their own fresh perspectives seemingly weekly, building an immense network that continually push the envelope for new generations of jazz fans. *Flock*, a new collective of already established artists that emerged in this new wave ramp up the excitement levels once again. Comprised of Bex Burch from Vula Viel, Danalogue from The Comet Is Coming, Sarathy Korwar from Maisha and Tamar Osborn from Collocutor, it is no surprise that *Flock* is a forward-thinking, highly atmospheric and distinctive concoction of modern jazz and experimentalism with an electronic edge. Measured and controlled throughout, the record is at times taut and claustrophobic, at others expansive, and bright. Straddling *Twin Peaks*-like surrealism and smoky atmospheres, the record bristles with the fizz of improvisation as each of the five artists blend their distinctive flavours with intuitive understanding, cohesion and individual spirit. ***Tom Jones***

ADD THESE TO YOUR PLAYLIST:

Prepare To Let Go, Sounds
Welcome, My Resonance

8/10

Poliça
Madness
Memphis Industries

Two years on from their highly acclaimed *When We Stay Alive*, US synth pop outfit Poliça return with a new album of brooding, synth-driven work. *Madness* is the Minneapolis-based band's sixth and most polished album to date, but retains all the distinctive dreamy electronics, sheeny textures and emotional depth that has marked Poliça's career to date. Channy Leaneagh's emotionally affecting vocals take centre stage as the subtle, classy production sweep you away. Brooding, full of shadows and a hint of melancholy, but with plenty of strength, positivity and self-assurance, *Madness* is a complex encapsulation of the human experience. Shimmering synths, deep, stabbing basslines, visceral drum patterns, muted melodies, glitchy electronics and beautiful, emotive vocals combine to create a soundscape that is bold, full and ever evolving. From quieter, more introspective moments to heady, driving excursions and onto a more playful, almost-funk laden numbers, this is Poliça's most diverse album so far. Perfectly paced and balanced. ***Tom Jones***

ADD THESE TO YOUR PLAYLIST:

Live, Away, Blood

8/10

RECOMMENDED

Forgiveness
Next Time Could Be Your Last Time
Gondwana

Forgiveness is the new collaborative project between Portico Quartet's Jack Wyllie, DJ and multi-instrumentalist JQ and PVT and Deep Learning member, Richard Pike. Living up to their name, the collective's debut album is a wonderfully emotive slice of endorphin-flushed tranquillity. Merging elements of jazz, ambient, fourth world, experimental, new age, electronica and eastern philosophies, *Next Time Could Be Your Last Time* is a diverse, sensuous journey that wanders through complex and intricate musicality with the same ease that it slips into moments of transcendental meditation. Rich electronics meet with natural sounds and acoustic instruments as their synth-laden atmospheres blend seamlessly with the sounds of natural life in the vein of Japanese environmental music. There are warm melodies, beautiful strings, soft bass and gently fluttering flutes and sax drifting over subtle and inviting synths and stretched out pads to create an inviting soundscape. There is a laidback sense of playfulness on the record too, with each musicians' joy penetrating through. *Next Time Could Be Your Last Time* is an almost utopia-like landscape where time and space is slowed down to allow connections, to each other, ourselves and the natural world around us, to become stronger and more resonant. ***Tom Jones***

ADD THESE TO YOUR PLAYLIST:

Mushroom Umbrella, Rainbird, Chameleon

9/10

THE ART OF DJ MIXING

DJ tech has come a long way in the past few decades, pushing some old skills into near irrelevancy and presenting a host of new opportunities. But the core of what makes a great mix is the same as ever...

It's something of a cliché in all realms of music making to say that it's not technical skill that matters so much as the music itself – but that's undeniably true when it comes to DJing. In recent decades, broadening technology has meant that there is now a whole diverse range of ways in which someone can approach DJing. At its core though, the definition of what a DJ is remains unchanged: a person playing a continuous selection of music for the enjoyment of an audience.

On the basis of this definition – we're counting turntablism as a separate, albeit related artform, for the sake of argument – it's obvious why your choice of music is vitally important. You might be able to make your blends perfectly seamless and add countless effect flourishes, but if you're treating your crowd to a lacklustre selection of tunes you're never going to make an impression. Similarly, someone with a strong selection of tracks and a good understanding of how to structure a set can go far even with only very basic mixing skills.

What's more, the honest truth is that DJing has never been easier, at least on a technical level. We don't mean this as a dig at the younger generation of DJs, in the way that some bitter old timers might, but it's ultimately true. Back in the '80s or '90s club DJing meant using two or more vinyl turntables and manually matching BPMs using nothing more than pitch faders along with your hands and ears. The advent of CDJs, which were significantly more precise and would display the BPM of the current playing track, made beatmatching instantly simpler, and things have only become easier since then.

It's not only beatmatching that has become easier in the past few decades though. The whole process of finding, collecting and playing music has become exponentially more accessible with the rise in digital music. While many DJs, understandably, still hold a candle for vinyl records, the old need to find, purchase and transport your collection in a physical format introduced a significant barrier in terms of cost and practicality that simply isn't there anymore.

In reality, current technology would allow you to become a competent – if rather average – DJ with very little work. Simply hop on to Beatport, use their charts to download the most popular tracks in your chosen genre, then allow the Recommended Tracks and Sync tools in the likes of rekordbox, Traktor or Serato to do most of the hard work for you.

Is DJing too easy in this day and age? Many professionals would disagree

FIND YOUR STYLE

That might sound like a bleak outlook, but it's only half the picture. For one thing, as much as modern technology has made DJing easy, it's also massively expanded the scope of what's possible. Even basic DJ gear often offers access to samplers, effects, flexible hardware inputs and other features that let users try a multitude of approaches. It's never been easier to put your own unique stamp on a set, particularly if you're incorporating your own music (see over the page).

What's more, there have never been more ways to connect with other DJs, musicians and listeners. As was proven during the forced pause to worldwide nightlife over the past couple of years, platforms like Twitch, Soundcloud, YouTube, etc, offer a way for you to showcase your mixing skills even without getting out to a club or gig.

> AS MUCH AS TECH HAS MADE DJING EASY, IT'S ALSO MASSIVELY EXPANDED ITS SCOPE

The internet age opens up countless new routes to finding new music too. In the past, sourcing a crate of killer records might have involved getting out into the real world and befriending fellow DJs, label owners or the staff at your local record shop. All of these things are still good ideas – creating links in your scene and networking with up-and-coming musicians is the best way to get access to exclusive tracks – but there's nothing stopping you doing this remotely. If you like a particular artist or label, buy their music directly from Bandcamp or their website and message them to let them know you're playing it. You might just strike up a conversation.

Ultimately, breaking down the technical barriers that stand between the amateur listener and DJ has put the emphasis back on the music more than ever. Playing the same tracks as everyone else won't get you very far. Dig deep, whether it's in a crate of second-hand vinyl or an online rabbit hole. Form your own style and taste, and find what it is that sets you apart as a DJ.

Is cloud streaming really a viable option for DJing?

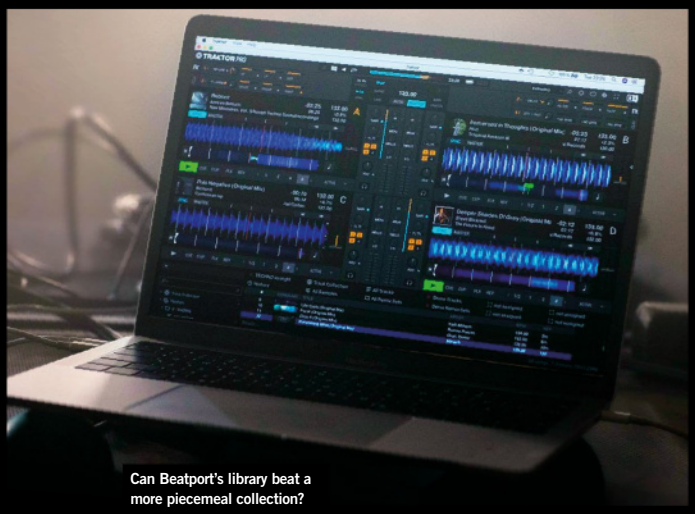
Most DJ software apps are now compatible with at least a few streaming libraries, but are these going to replace your (virtual) record crate any time soon?

The general principle behind streaming from a cloud music library for DJing is the same as using any streaming service such as Spotify or Apple Music. Instead of playing music from physical media or pre-loaded onto a drive, you can access a library of tracks stored remotely. There are some key differences for DJ-specific streaming tools though, primarily that they allow tracks to be loaded into a mixing app. This allows users to adjust the playback BPM, save metadata and potentially do things like apply cue points, and slice or sample the track.

WHICH MIXING SOFTWARE IS BEST FOR STREAMING?

In the past few years most major DJing applications have added some form, but some are better served than others. Rekordbox – which has its own cloud-based library – plus Serato and VirtualDJ are arguably top. The first two have compatibility with Beatport LINK, Beatsource LINK, SoundCloud GO+ and Tidal, while VirtualDJ offers these plus Deezer too.

Denon's Engine DJ – designed to work with the company's own gear – is handy too, with integration for Beatport, Beatsource, Tidal and Soundcloud. It also allows users to connect a Dropbox account for cloud storage of their own music files.



Can Beatport's library beat a more piecemeal collection?

Traktor, meanwhile, is slightly less flexible than the others, and works with just Beatport and Beatsource.

For iOS, Algoriddim Djay offers compatibility with Tidal, Soundcloud, Beatport and Beatsource.

WHICH IS THE BEST STREAMING SERVICE FOR DJS?

Not all streaming services are equal. Beatport LINK and Beatsource LINK are services specifically aimed at DJ use. Both are based around the same fundamental technology. This allows tight integration with host DJ software and – crucially – lets users store a generous library of tracks in a 'locker' for offline use. Both offer subscription tiers, which primarily affect how many tracks a user can store offline as well as the streaming quality.

Being DJ-focused, both offer extra conveniences such as having tracks pre-tagged with BPM and key info, plus access to genre-themed or DJ-created charts and playlists. Both have their own web-based mixing apps too, so you can mix directly from the streaming services.

Given that they use similar technology, what's the difference? Essentially that comes down to the libraries themselves. Beatport LINK gives access to tracks from the Beatport store, while Beatsource has its own library sourced from a variety of major and indie labels. Broadly speaking, Beatport is probably better for purely electronic music DJs working in genres like house, techno or DnB. Beatsource is a bit broader, with more cross-genre flexibility and handy playlists aimed at event DJs, specific genres and decades. Beatsource also stocks an array of DJ edits and acapellas. This is a pretty broad summary of each service though – both offer free trials, so it's worth digging into the libraries of both before deciding which to pay for.

OTHER STREAMERS

Other compatible streaming services have their own pros and cons. Soundcloud's DJ-specific Soundcloud GO+ lets users stream tracks at 320kbps – higher than Beatport or Beatsource – and download an unlimited number of tracks to store offline. However, it's worth remembering that Soundcloud is largely stocked by its user base. While a lot of tracks on Soundcloud will likely be pro-quality, there's no guarantee that uploads themselves will match your streaming quality.

As for Tidal or Deezer, both are primarily music listening services, with some significant drawbacks for pro DJs. Firstly, the ability to download tracks for offline use is very limited, so these aren't great solutions unless you have a reliable internet connection. More significantly, both have legal restrictions on using their libraries for commercial use, meaning limitations on where you can play and whether you can record or broadcast your mixes. Explore the T&Cs of each.

IS A CLOUD STREAMING SERVICE A GOOD OPTION FOR DJING?

Ultimately the answer comes down to what you want to do and where. For event or bar DJs who require flexibility and a broad, regularly changing catalogue of tracks to play, Beatport LINK and Beatsource LINK are both appealing and, since you can pre-download a decent crop of songs, fairly useful even if without wi-fi. Both services are fairly expensive though, and genre-specific club DJs who work from more tightly curated playlists may find that simply buying music outright is still cheaper longer term.

Soundcloud has a very electronic music-friendly catalogue. It's worth doing plenty of prep if you do plan to use it though, to be sure of both the quality and rights status of anything you plan to play.

As for the likes of Tidal or Deezer, it's hard to recommend either for pro use, although they could be good options for playing around at home.

Carl Cox is known to straddle both producer/DJ domains

DJ meets producer

There are many ways to blur the lines between DJing and performing your own tracks. Let's explore some…

There is, on paper at least, no reason that a great DJ needs to be a great producer, or vice versa. There have been countless impressive DJs over the years who have never released a track of their own, or at least none that were particularly noteworthy. Similarly, many wonderfully electronic musicians make pretty average DJs, or don't bother at all.

That said though, the electronic music industry is geared up in a way that encourages artists to do both. If you're releasing your own tracks, or trying to persuade a label to do so, a regular schedule of DJ gigs is an invaluable tool to help promote them. Conversely, having a big track or two to your name could be the key to picking up higher-profile, better-paid DJ gigs.

The good news is, for those that do both, there are beneficial ways you can blur the lines between the two sides of what you do.

EXCLUSIVE ACCESS

One of the main benefits of incorporating your own music into your DJ sets is the ability to play tracks nobody else has access to. If you've got projects on your hard drive that you're yet to release – even if they're only loops or ideas – it's worth trying to incorporate them into your sets. Not only does this give you music that no other DJ will be playing, but lets you roadtest ideas.

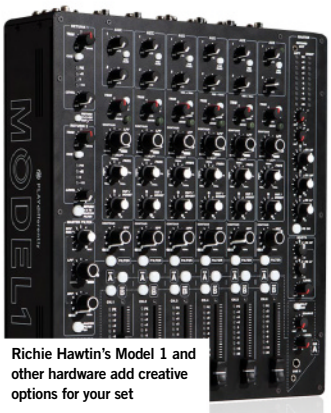
Even if you're playing tracks that you've already released, it's worth crafting yourself exclusive edits for a little variety. Try creating extended or dub mixes of your tracks, with extra rhythmic sections or cool, club-friendly FX. The same approach can be taken to other people's tracks too: a good edit putting your unique take on a classic track can be a great DJ calling-card.

> MODERN DJ GEAR OFFERS PLENTY OF POTENTIAL FOR GETTING CREATIVE WITH YOUR MATERIAL

GETTING CREATIVE

Incorporating your own tracks into your DJ sets needn't be such a rigid process as exporting tracks from your DAW and playing them as-is. Modern DJ gear offers plenty of potential opportunities for getting creative with your material.

One option is to break your tracks down into stem elements that you can then recombine on the fly. Try breaking the music down into, for example, separate drum, bassline and melody files. Most DJ software gives the user access to at least four decks to play with, offering plenty of scope to work with multiple elements, allowing you to get creative with things like cue point jumping, looping or the effects and filters.



Richie Hawtin's Model 1 and other hardware add creative options for your set

DJ TOOLS

Certain bits of DJ gear are particularly good for this. Although the Stems format available in NI's Traktor software hasn't been that widely adopted for commercial releases, it still offers a lot of potential for getting creative with your own music.

Recent years have seen a rise in popularity for large format, creative mixers that lend themselves well to bridging the gap between DJ set and live performance. Hardware like Pioneer's DJM-V10, Allen & Heath's Xone:96 or the Richie Hawtin-designed Model 1 each offer up plenty of ins and outs along with creative EQs, filters and effect capabilities. A powerful approach is to pair a mixer like one of these with some hardware effects, creating a send/return for some hands-on creativity.

An alternative approach to the 'stem' tactic is to break the most distinctive elements of your tracks down into loops and load them into a sampler. Again, most DJ software and a lot of digital hardware comes with some kind of sampler capability built in. This gives you a quick and easy way to trigger and experiment with elements of your work while keeping it locked to the tempo of your master clock.

Dedicated hardware can give you even more options. Sequencer-equipped gear like Elektron's Digitakt or Octatrack, or Roland's recently revamped SP-404 can all make great side tools.

Taking the concept further, the current trend for standalone 'DAW-in-a-box' tools offers even more options. Something like Akai's excellent MPC One or Live II, Native Instruments' Maschine+ or Polyend Tracker effectively allow you to take a full DAW-style project out into the booth with you.

Wth MIDI outputs or Ableton Link on a lot of DJ gear, and plenty of ins/outs on modern mixers, there's no end to ways you could augment a DJ setup. Sampler? Drum machine? A mini modular system? The world is your oyster.

8 mixing tips to make you a better DJ

A great stack of tunes and an understanding of how to structure a set are the most important parts of becoming a great DJ, but a few mixing skills help too. Brush up on your techniques here

Use your cue points

1 Pretty much any modern DJ player or mixing software will let you add multiple cue points to your tracks. The primary use for these is pretty obvious: to mark the first beat of the track, the point that you're most likely to start playing that track in order to drop it into a mix. What to do with those leftover cue markers then? There's a multitude of possibilities. You might want to add 'jump' points to a track, to, say, skip over a long breakdown or a vocal section you'd rather avoid. Alternatively, you could use one to skip ahead to a distinctive hook that you might want to tease before mixing the track in properly. Aside from letting you jump to different track sections, cue points can make handy markers too, letting you indicate things like the beginning or end of key phrases or good points to mix the next track in.

Mix up your transitions

2 Certain types of music tend to lend themselves to certain styles of transition. Four-to-the-floor genres like house and techno work well with long, slow blends, while more rhythmically diverse styles like hip-hop or grime are better mixed using quick cuts.

Don't be afraid to mix up approaches though. Done well, an abrupt cut into a curveball track can be a great way to add new energy into an otherwise hypnotic and measured mix. Alternatively, if you're going to be working primarily with shorter tracks and more abrupt transitions, why not loop up a couple of grooves and let your mix run on a little as you go along?

Watch your levels

3 The most obvious sign of an amateur DJ mix is wildly inconsistent volume level. Either the mix will get louder and louder as the DJ cranks the gain with each new track that comes in or else things will ramp up during the transitions – as two tracks are playing at once – only to drop in volume again as one track is mixed out. Watch the metres on your mixer and listen closely to your monitors. Use the faders and EQs to pull one track back as the other comes in, allowing for a more natural shift in emphasis rather than simply ramming one track over the other.

Push the tempo

4 The pitch faders on your DJ gear allow you to match it to the BPM of another track – but realistically, how far should you push that? In the days of vinyl, the rule was generally not to go beyond a 5% adjustment. Anything further would essentially change the key of the track due to slowing it down or speeding it up significantly. Digital gear lets you adjust a track's speed without altering the pitch but if you alter a pitch fader by anything more than about 3-5%, anybody familiar with the track will notice. That's not to say never do it – it can be a cool stylistic trick to play a track at a radically different speed to surprise your audience or mix it into something unexpected. Even in the vinyl realm, switching a turntable's speed between 33 and 45 is an age-old trick for out-there transitions.

Understand musical keys, but don't get obsessed by them

5 Mixing in key – or harmonic mixing – is a major trend in modern DJing, one that you're likely to have heard of. Put simply, it involves structuring your set around

Work the EQs

6 The level to which you use your mixer's EQs or filters is a matter of taste. Some DJs prefer to blend tracks in with minimal adjustment, others will creatively carve out low or high frequencies to change the feel of a track. If you are going to do some frequency shaping, the key thing to remember is balance. If you try mixing two tracks both with the bass boosted, things are going to sound overblown and muddy. Balance out a boost in one track with a cut to the other – then switch the cut/boost around to change the emphasis!

tracks with the same, or complementary, musical keys in order to avoid harmonic clashes and create pleasing transitions. These days, most digital DJing software has some form of key detection and track recommendation tool built-in. Software developer Mixed In Key also makes a more fully featured application to help with harmonic mixing. This is all incredibly handy and there's no doubt that matching keys can be a great way to pair tracks in your set, but be wary of relying on this too heavily. For one thing, a track's key is far from the only consideration when it comes to picking a track in your DJ set. Just because two tracks have complementary keys, doesn't mean that their rhythm, structure or energy levels are going to work well together. What's more, just because two tracks have non-compatible keys doesn't mean that they can't work together, particularly if they're two percussively focused dance tracks. It all comes back down to the classic advice – know your music and trust your ears.

Read the room

7 It's a fairly obvious tip, but one that can get easily overlooked for DJs who may have got started in a time where pandemic closures forced many DJ sets into the online realm: learn to read a dancefloor. Whether you're playing a huge club or a small bar, keep an eye on your audience and see how they're responding. Whether it's head-nodding or full-on raving, are people engaging with what you're playing? If not, it could be the right time for you to change the energy by, for example, increasing the BPM or switching up the style of music.

Use effects with caution

8 Most DJ software or mid-to-high level mixers offer some form of effects, which can be great. Things like reverb, delay or filter sweeps can be used to help gel transitions, build tension or even help in covering up a clunky mix. Approach effects with a less is more philosophy though. Remember your job as a DJ is to showcase the music, and people might not want to hear you throwing elaborate stutter effects over their favourite track, and leaning on one or two effect tricks for every transition can get old quickly.

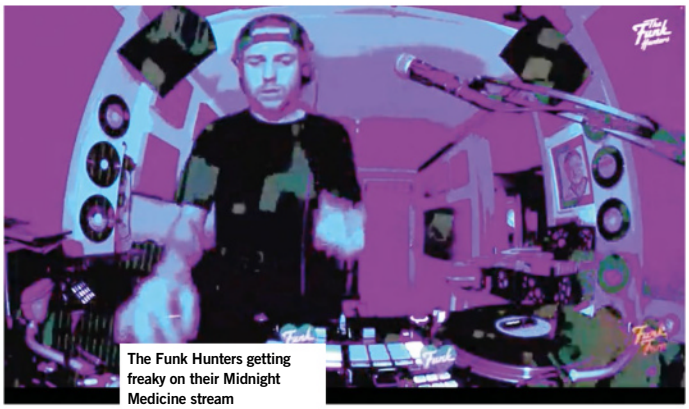
Twitch, please! How to stream a DJ set

Streaming is part of the new normal, and bags of fun. If you've been meaning to make the leap, read on. The new era of the bedroom DJ is here

During lockdown the DJ community took to live streaming like fish to water, as real world gigs took a necessary hiatus. Pivoting to online platforms like Mixcloud Live and Twitch, and broadcasting largely from their homes, this first wave of disc jocks quickly found their feet. And, after the initial gold rush, webcam sessions became more and more professional as everyone got to grips with broadcasting from their homes.

Fast forward to now. Pandemic restrictions may have eased as clubs reopen their doors, but huge numbers of music fans continue to support DJ channels online. The community gets bigger everyday as more and more DJs make regular live streaming part of their routine. Relative unknowns have amassed sizeable followings, and even make a fair chunk of change for their troubles. And whatever the time, there are tons of channels pumping out live music from all over the globe.

If you're looking to become a streaming star, here's a rundown of what you'll need, and where to go, to get up and running...



The Funk Hunters getting freaky on their Midnight Medicine stream

THE GEAR – WHAT YOU NEED TO GET GOING

If you're a DJ, we'll assume you have the kit to play on: be it a sweet new controller and heavyweight digital crates, or, if you're a wax nerd, 1210s and shelves groaning with vinyl. Add to that a laptop with internet access to your streaming platform, and you're ready to start.

To record yourself cutting it up like a champ you can use your smart phone camera, or get busy with apps like EpocCam or CleanCamera. If your laptop has a webcam, fire that up. Or, if you have a spare 50 quid, the pro choice since the start has been the Logitech C920. This HD cam is smooth and crisp, if hi-def is something you strive for.

Logitech C920s PRO Full HD Webcam. Recommended by Pros from the get-go

If space is tight in your house and you're struggling for a decent angle to film yourself from, a clip on fish-eye lens can massively increase your visibility. You can experiment with camera angles – fixing a view from above is a classy move. Or you can have multiple cameras and cut between them.

Most DJs opt for the "straight on" view like they're on stage. But as long as you can be seen, and the decks are in view, you'll be golden. Oh, and have a bit of a tidy up in your room – no one want to see your stinking gym gear hanging on the radiator. That's more of an OnlyFans vibe. House plants can also cover a multitude of sins.

Also, check the direction of your camera recordings: flip them around so that the decks appear to be going the right way round

Mics are another important bit of gear to factor in, too, as chatting to the live audience as you play has been widely agreed upon as the done thing. Pick one for your budget, opting for stands and pop shields for cleaner results.

Lighting is also something to consider. Not since the late 1970s have DJs been so preoccupied with disco balls and flashing neon. IKEA now offer ring lights with built-in camera stands for streamers, and screw-in colour bulbs are popular ways to make poorly lit rooms in your house have a more vibrant pop to engage viewers.

PLATFORMS – WHERE TO STREAM ONLINE?

There's Facebook, YouTube and Instagram, depending on where you've built the most followers. But Twitch continues to build the strongest DJ community online. Traditionally a gaming platform, it's now filled with worldwide scratchers and selectors, using its intuitive interface to beam out sets on their personalised channels.

Viewers can anonymously lurk and enjoy the show, or log in for free to light up the accompanying live chat room with requests, big ups, and throw up Twitch-specific emoticons or "emotes" and animated "bits" to cheer on their favourite artists.

Fans can pay to support these channels. And, for monthly fees that go to the DJs, get ad-free viewing, and exclusive subscribers benefits like custom emotes.

Mixcloud Live is also a fantastic place to strut your stuff, and gaining in popularity. It could potentially become the most viable place to play as it has licenses with record labels and rights holders, so DJs can play other people's music with less fear of copyright strikes or takedowns.

With these platforms, DJs either go live directly via the platform, or use all-in-one streaming software apps like Streamlabs, Restream, or OBS, for extra features, or to go live across multiple platforms at once.

REACHING LISTENERS – WAYS TO PROMOTE YOURSELF

After you feel comfortable rocking a

The Tuesday Morning Coffee stream with Skratch Bastid. Tasty tunes. Below left, DnB dude John B gives a party political broadcast. Below right, The Gaff enjoying himself and chatting it up

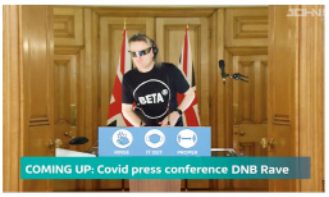
set while being filmed, it's time get your name out there and compete against the countless other streams vying for an audience's attention.

To stand out, consider your branding. A lot of DJs have decent logos and graphical overlays that tie everything in, helping frame the screen and strengthen their identity.

Also, the channels that get the most views tend to be the ones that have built up a following through regularly scheduled broadcasts. And they always use other socials to shout about when and where they're streaming next.

And a lot of successful DJs work off themes, or have well thought out and almost staged rooms to perform in, and stick to playing genres on certain days, to have a bit of a gimmick going.

Drum&bass heads should check out the maestro John B; his streams are an eye-popping mix of blistering beats, relentless gifs and fake backdrop changes that'll crack you up as you're getting on down.



Then the Canadian breaks outfit The Funk Hunters are known to stream in the witching hour with their "Midnight Medicine" sessions – a tripped out affair, with bonkers visuals, kaleidoscopic colours, and animations which will boggle the mind as their music soundtracks the whole experience.

Pittsburgh-native Buscrates rocks out disco 12's in a studio kitted out with walls of records, reel-to-reels, and vintage synths, seductively lit, enhancing the retro mood.

Meanwhile hip-hop legend Skratch Bastid gives thousands of viewers a strong shot of turntablism on his "Tuesday Morning Coffee" show, featuring green screen trickery so it looks like he's playing on the

counter of his local coffee shop each week as he doubles up the beats.

Mainly, you should think about the community. Jump in the chat in other people's streams, and become a regular, supportive presence online. It maximises exposure and firms up relationships with other creators and audiences out there.

BusCrates broadcasting from Pittsburgh, displaying a staggering amount of vintage gear as a backdrop

KNOWING WHAT TO SIFT THROUGH FOR THE NEXT HOUR IN ADVANCE MEANS LESS "SERATO FACE"

"Raids" are massively popular, too. Via an extension in Twitch you can nominate the next channel for all your viewers to jump to like a swarm of (welcomed) party crashers.

Off the back of that, DJs from across the world join up to plan out day long back-to-back programming, building up hype and crazy viewing numbers along the way. Ask to get involved. DJs online are always up for building bridges and putting people on before and after them.

TIPS FOR MAKING A GREAT STREAMED DJ SET

Having a great stream is about having a great time. If you're enjoying yourself, viewers will too. DJs like the notable vinyl obsessive The Gaff have bags of charisma, and it's infectious. You don't have to jump about like a banshee. But, starting the stream with positive energy really helps.

Then you can start calling out to people in the chat: if you get a new paid subscriber or viewer, you should shout them out. And track IDs and info on your tunes is always welcome.

Engaging with people builds bonds and they get to know you, which translates into subscribers and followers, and grows your channel.

Don't be afraid to ask viewers if the sound is good, or the connection is stable. Best they tell you your mic's clipping now, or video is glitching out, so you can fix it sooner than later.

Plan out your sets a little more, too. Knowing what to sift through for the next hour or two in advance means less "Serato face" and more back and forth with your fans, and more considered mixes.

If you're on a laptop with DJ software, most of your computer screen will be taken up with virtual decks, making it hard to monitor any live chat. Try logging into Twitch, say, on your phone at the same time.

Try out more chilled sets. Or dig deeper into your crates for rarer underground flavours. There's not much need to rock a dancefloor here. People tune in from different time zones, and could have you on in the background while working. They can get the 20 hottest tunes of the day from any online shop. They're there for your collection, so show it off!

Bottom line, have fun. If the buzz of playing music for people gives you life, then streaming is the perfect way to get that fix. It keeps your skills sharp, and it's the ultimate business card. Zeros have become heroes online. There's no giving out mixtapes, badgering promoters, or coming up through the bar scene. There's a potential audience out here that could fill a stadium just waiting for you to put your first record on. Just do it! FM

© Richard Eccleston

LOUIS LA ROCHE

Danny Turner quizzes Louis La Roche on his fourth album *We're Not So Different* and its authentic disco-era world

Starting his career in the late 2000s, Brett Ewels, aka Louis La Roche, always held a deep-rooted passion for disco music. His soulful debut album *To Rest is to Rust* (2015) took a funkier direction, while the mellow, nocturnal parlance of its successor *Sleepless Nights* had a stab at French house. Meanwhile, Ewels' third album in five years, *Saturday Night Griever*, ventured into indie pop and saw him collaborate with a different vocalist on every track.

These shifts in direction allowed the Norwich-based producer to reference his love for disco without being too obvious. However, the combined trauma of the Covid pandemic and a near-death experience in the family saw him yearning for the comfort of his teenage self and the genre's halcyon days. Conceptually tied to the 40th anniversary of the closure of Studio 54, on his latest release, *We're Not So Different*, Ewel brings disco's iconic sound back to life with unerring accuracy.

> "FOR ME, THE YEAR I LOVE THE MOST IN MUSIC IS 1983 BECAUSE THERE WAS A CROSSOVER BETWEEN POST-DISCO AND SYNTHS BECOMING AFFORDABLE"

Why has it taken until your fourth album to pay proper homage to disco – a genre you admit is a major influence?

"It's not that I moved away from disco, because I've always enjoyed listening to and making it, but I wanted to go further and create traditional pop music. I first started making music at around 17 years old. At the time, disco was my comfort zone genre, so it was fun to return to it with fresh ears using all the experience that I've gained over time. Disco's in my blood, really."

Presumably, the title of the album *We're Not So Different* relates to accepting diversity?

"I wrote the album at the same time as the 40-year anniversary of Studio 54's closure and read an article all about it. I got really inspired by that whole time period and it's a bit weird how we've come such a long way yet are stuck in the same rut. Crowds were so much more accepting and diverse in 1979. You had all different ethnicities, genders and sexualities, but now it's almost like white people's music. That's fine – it is what it is, but disco was born out of discrimination and the clubs were people's safe zone. The title's basically saying that we're all going through a lot of the same problems in the world right now, just as they were back then."

How do you think disco music differentiates itself from house music, or the Nu House sound that you were a student of when you first started making records?

"I'm not really switched on to the charts or what's being played in clubs a great deal because I feel that house and techno have merged and a lot of those soulful roots have been lost. I don't really listen to much modern house, other than nostalgic-sounding new records, but house and disco does seem to remain strong in people's minds. Now we're going through the '80s thing and everyone's trying to sound like that."

The '80s revival seems to have been going on for decades and decades…

"Disco never really left did it? People like to say that it died, and it did in the mainstream, but it went back underground and rippled into other genres. As you mentioned, people are still very much influenced by the '80s sound – it never really went away. I'm in my early 30s so didn't live through that era, but I constantly heard '70s and '80s songs on the radio when I was growing up. For me, the year I love the most in music is 1983 because there was a crossover between post-disco and synths becoming affordable. Electronic music still had live instrumentation and hadn't gone full-on digital at that point."

Were you listening to a lot of '70s disco as a form of research or did you already have an ingrained feel for the tracks you wanted to produce?

"A bit of both. I was definitely making Spotify playlists of similar songs I wanted to make and taking notes, but I'll typically do that with albums anyway. At the same time, a lot of that music is embedded in me. Sometimes I'll make songs in the traditional way by picking up a bass, guitar or sitting at the keyboard, and other times I'll be inspired by a drum groove and go wherever that leads me. I'll often have a melody or lyric in my head that I'll hum into my phone before trying to decode it and create a song."

Is the process of thinking up tunes a contrived thing or do they literally just pop into your head whenever you least expect it?

"Sometimes it can happen at the weirdest of times. I'll get into bed, hear a tune and have to sneak away from my girlfriend and record it in another room. Other times, a melody will pop into my head when I'm in the shower or at a shop. The voice notes on my phone are hilarious; they're full of me humming melodies, lyrics or a phrase somebody said that could turn into a song title or lyric, and I try not to get in the way of that *[laughs]*."

Although the album was recorded during a melancholy time, you've combatted that with a very upbeat collection of songs?

"Most of the album was written in 2020 and a lot of things happened that influenced it. Obviously, the main one was the pandemic and I think that was the impetus for delving into the comfort of my childhood and writing music that was overly euphoric rather than depressing. I tend to work remotely anyway – I can't just sit down and write a song with someone else, so that whole lockdown period wasn't necessarily out of the ordinary for me."

Prior to recording, did you create some sort of toolkit of disco-based sounds?

"I already had a library of go-to sounds that I liked, be it drum sounds I've collected, samples taken from my Juno-60

or guitar and bass, but a lot of it's about knowing where to head once a song goes in a certain direction. For example, if a song is starting to sound like disco and I need live bass or lots of percussion, I'll pick up a guitar or add some vocals depending on what the song needs at that moment. For songs that are more electronic, I'll usually stick to using hardware or soft synths and work within those limitations."

What VST libraries are you using?

"I like a lot of the Arturia stuff and u-he's Diva and Repro 1 and 5. Whether using hardware or software, I like synths where you don't have to delve into menus. I like dials and knobs but hate scrolling through menus to try and change something. It's not that modern synths don't have a place – I still use stuff like Serum, but a lot of the Arturia and u-he synths are based on emulations of old synths and are more hands-on."

Vocal collaborations were a major feature of your last album *Saturday Night Griever*, but this time only two?

"On the last album I wanted to set myself the challenge of every song being a vocal collaboration, but this time I wanted them to be more personal to me rather than trying to get the best out of a vocalist. Even for the two vocals collaborations on the album it was my initial idea at the heart of it, and that's usually how I work. I'll record a vocal melody or some gibberish, send that to a vocalist and try to inspire them to take it to the next level before fleshing things out from there."

By contrast there are also a whole lot of vocal samples on the album…

"There's lots of spoken word on the album and most of those samples came from old records or YouTube. There's a song called *A Certain Feeling*, which came directly from what the sample actually said, and *A Night Like This* was similar – I just asked myself what the phrase would sound like as a musical painting. The track *Gender Dysphoria* is taken from a video of a transgender girl talking about what it feels like to be in that position and I was inspired to write a song around her words."

Are you using hardware samplers or is it all in the box?

"I only really have one hardware sampler – an old Roland SMI-1. It's really obscure and not many people use it, but I like how it's so basic. I think it was released in 1993/94, so it has a lot of limitations, but I like the way that its internal preamps add a natural saturation and colour to the sound. If I do use it, it's mainly to dirty up drum

"I LIKE SYNTHS WHERE YOU DON'T HAVE TO DELVE INTO MENUS. I LIKE DIALS AND KNOBS BUT HATE SCROLLING THROUGH MENUS TO CHANGE SOMETHING"

beyerdynamic

PRO X

HOME OF THE CREATORS

NEW PRO X SERIES

M 70 PRO X | M 90 PRO X

TRUSTED SOUND IN EVERY RECORDING

The new PRO X microphones are here to meet the requirements and needs of today's creators, whether they're musicians, streamers or podcasters.

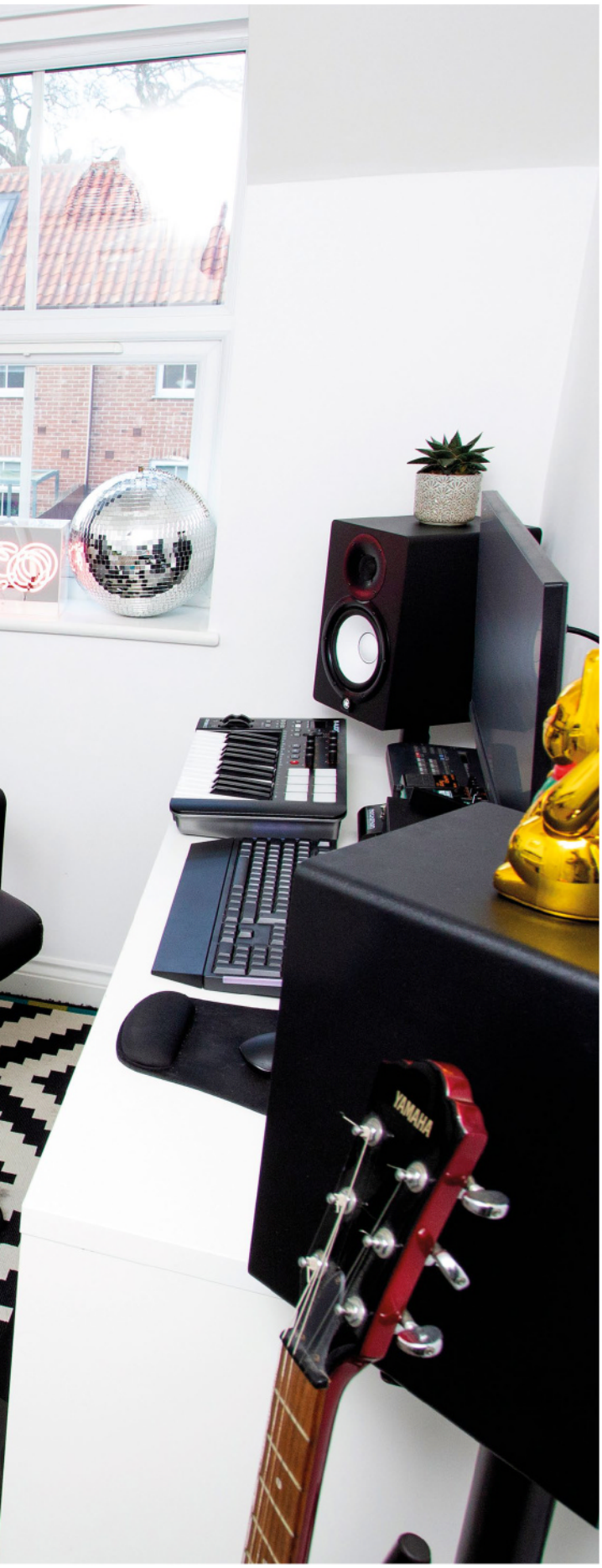
Their sound features modern clarity and classic warmth. Their unique design and comprehensive range of accessories make PRO X microphones genuine all-rounders.

CREATE THE AMAZING

POLAR
EXCLUSIVE UK DISTRIBUTOR

sales@polar.uk.com | polar.uk.com/pro-x | 01444 258258

Roland
JUNO-60



sounds. Other than that, I'll use some plugins to make something new sound old."

Are you referencing all of those iconic 909 sounds for your beat creation?

"No… 909s. I get my samples from a company called Samples from Mars who sample drum machines in as many ways as you can possibly imagine. Over the years I've collected a big library of drum machine sounds but still like to sample from old '80s disco and funk records. I'll chop them up to get kicks, snares and hi-hats taken from all different places and often pair them with modern drums. For example, the top part of a kick drum could be a sample from an old record but the bed of the kick uses a modern sound to give it more punch."

Traditionally, the kick and the clap are vital components of your typical house or disco track. Do you abide by certain principles for recording those percussive elements?

"You have to treat the kick/clap relationship very differently depending on whether a song is made for a club or the radio. For a club track, that connection between the bass, kick and drums is so important because that's the part that's most amplified in a club environment. If something's for radio and more pop-inclined, it doesn't matter so much."

Early disco was very rhythmic and musical. How did you ensure the songs retain that feel while predominantly working in the box?

"If I'm going for the human feel I'll try not to over-quantise because everything becomes robotic and mechanical. I like to add swing to pretty much everything and take things off-grid to give a human feel to the sound, especially as dance music is all about swing and making people want to dance. I consider myself a better keyboard player than guitar or bass, but I still like to play in those instruments. What I end up doing is playing a part for a couple of minutes and basically comping like you would with vocals before sticking everything together so it sounds like a flawless take. It's going back to that idea of fooling the listener and making something sound like you picked up a guitar and played it when it's actually been manipulated. It's a weird balance because part of me wants to keep things rigid and on the grid, but I know that if I can play an instrument in first time round it'll sound so much better. Sadly, if I physically can't play an instrument well, what choice do I have?"

You'd advise that a badly played but corrected sound will at least add a bit of personality to people's productions?

"Nowadays with platforms like Splice it's become so easy to Google guitar and bass samples or drums and vocals, so the art of recording has become a little lost. It's a bit lazy to just find something that someone else has made and throw it in your track, and although there's nothing wrong with that per se, you've got less control as you're limited to using something that's already been recorded. I'm always looking to get to the sound that's in my head, but if a sample has a reverb on it and you don't want reverb, there's nothing you can do."

Do you also find that amplification of a real instrument is enough to add colour to a sound?

"With plugins like Guitar Rig and AmpliTube, you can easily get an amp or pedal sound so you don't have to spend much money on hardware outboard anymore, but there's just

PCSPECIALIST

Pioneer DJ

BIAS FX 2
ROCKTRON

M-AUDIO
OXYGEN25

JUNO-60
Roland

"FOR ME, THE ALBUM COMES FIRST AND I THEN FIGURE OUT WHAT THE SINGLES WILL BE. I KNOW THAT'S A VERY OLD-SCHOOL WAY OF DOING THINGS"

something about the raw physicality of playing something in. Even though it's being channelled through digital, it will sound better than a fake-sounding, software-based VST. While those tools have come a long way, you can't really input all the ghost notes and fret sounds."

You've released four albums in six years now. Do you feel you're going against an industry that's increasingly oriented towards singles and EPs?

"For me, the album comes first and I figure out what the singles will be. I know that's a very old-school way of doing things, but I hate it when you've heard all the singles by the time the album comes out. When the songs are all written at the same time, it's easier for an album to have a concept. If you're just putting out singles you can be influenced by things around you and every track starts sounding completely different. It's good to have variety in your music, but I also feel it's good for an album to be based on a particular palette of sounds."

Have you been able to perform the new album live or are there plans for that?

"That's always been on my to-do list but I'd be so out of my comfort zone. Part of that is the physical side of it – I'm just one guy and I can't really play any instruments so I'd need to have a band, but it's also down to logistics. My love has always been in the recording of music – I write a new song virtually every day."

How did you find the experience of supporting Kylie Minogue in 2015?

"We played in huge arenas to between 10,000 and 15,000 people, so rocking up to play a DJ set there felt a million miles away from what I was used to, which was playing in a gritty club somewhere. But it was something I hadn't done before so I just thought, 'why not?'"

Did you get to meet Kylie?

"Yes I did and I also got to meet her tour agent who'd done tours for the likes of Jay-Z. I was probably freaking out more about him, but it was unusual to see her as 'normal Kylie' with her hair in a bun and wearing a hoody like she was at home. It was a very surreal experience, but a nice one!" FM

WANT TO KNOW MORE?

Louis La Roche's latest album *We're Not So Different* is out now on Ever After Records. More information from **louislaroche.fanlink.to/LLRWNSD**

Loopcloud

Find the perfect sound, faster

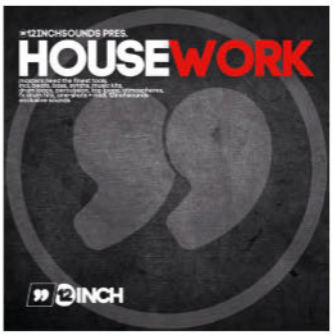
Loopcloud exclusives

MT GEAR OF THE YEAR 2019 WINNER

Try it now at Loopcloud.com

loopmasters.com

Great sounds. Serious inspiration.



SIGN UP TO RECEIVE 1 GB OF FREE SOUNDS

JENNY HVAL

Jenny Hval's latest album, *Classic Objects*, saw the Norwegian embracing – and coming to love – the 'humdrum' side of production in ways she'd never before explored. **Kate Puttick** found out more

© Jenny Berger Myhre

Rationalising a concept behind a piece of musical work can be both frustrating and a joy for experimental artists. Jenny Hval's latest LP, *Classic Objects*, is more concerned with everyday life than perhaps previous albums like *Blood Bitch* with its vampires and – just as scary – musings on the female body. Still, it can, the multidisciplinary artist admits, sometimes be nice just to get into a good old chat about mic positions. "I may be more of a lyricist than a lot of other people who work with music, but at the same time, the way I work with my setup actually informs the lyrics a lot. So it's a conversation that can take up as much brain space creatively as the conversation that disregards the 'technical stuff'. Because technical stuff is adventurous."

And Hval's work is nothing if not that. From her early noise and metal band beginnings, she's moved deeper into the electronic world in her solo work, producing eight albums alongside an acclaimed 2021 side-project as Lost Girls, *Menneskekollektivet*. But her music has retained that initial love of all things dark and contrarian wit – even in its gentler moments, with a church-like organ or pleasant gospel interlude, you're never far from something more discordant…

"I ALWAYS TRY TO BE WRITING WITH SOUNDS. I CAN'T JUST HAVE, SAY, 'JENNY'S LIBRARY OF COOL-SOUNDING DRUMS'. THAT'S NOT HOW I DO THINGS"

How did you kick off songwriting for *Classic Objects*?

"Some of the songs for this record started a few years ago – the title track and *Jupiter* started five or six years ago. They were originally started when I wrote *Blood Bitch* but I didn't have lyrics. I think what I did was make demos in Logic. Sometimes those early Logic files end up on the albums as well, so it does define the albums a lot. For this one though I changed to using actual percussion and instruments. I often work on rhythms and go 'hmm, I need a BPM'. I can often more easily find words when there's a BPM and I can find a rhythm. It doesn't have to be a straightforward rhythm but I find that I need a heartbeat for a character that speaks and I can bring to life. A synth or anything with pulse. Many times it's a simple pulse but for this album I started with contrasting percussion samples and from that came, maybe, singing on top, or keyboards as some kind of groundwork, and then things fall out of my mouth on top of that. That's how I write a lot of the time. And I find that really fun and invigorating because when I start with something that isn't chords I can invent some rhythmical genre that sits more abstractly for me than playing something I've done before. I cheat a little bit and I create a room for a character or voice to be in and that happened a lot on this album.

"For the two songs that are really old I spent six years or so finding the words. Unlike when I've started with the music, these songs required me to find the right words from the rhythms. I couldn't just use whatever. I spent a lot of time making different versions of those songs until it felt like they were right. It feels esoteric, but sometimes I do think there are hidden messages in the production side that haven't quite emerged. It was worth it to wait for those songs. It also meant I had several versions of those songs [*Jupiter* and *Classic Objects*]. It was nice to have different visions. From that, I had these attempts at more percussive acoustic arrangements with tabla and stuff that I'd tried years ago, and it inspired my way of looking at building kits of different percussion on top of each other and building further arrangements from there.

"Some of the arrangements, like basslines, typically I do on synth. Whatever I have lying around. I think this time I had a synth that I decided at the last minute not to sell, so I played a lot of basslines and initial organ sounds on that. And then some singing. And further samples. I spend 80% of my time during songwriting looking through sound libraries and finding sounds. To find words or a character that I can sing or channel. A character who is obviously still me but speaks with this or that melody or intonation. Almost like finding the right reverb or room for a vocal."

We know *Practice of Love* was framed around certain tempos… When you're looking for these 'characters', do you think in terms of a particular musical palette – an era or historical set of sounds – or is it more anything goes?

"I did work a bit like that because at that time I was working with someone who was very into gear history – film music and synth eras. I had an Odyssey which defined *Blood Bitch* quite a bit. So in that case we went for certain instruments and then were inspired by lots of music using that instrument and taking a deep dive into that. For this album I worked on my own and went specifically for '90s arpeggiated synth. Sometimes from sound libraries, sometimes from a Virus synth which I now really hate as it just doesn't work. The system is broken. I hate it; it makes me so angry. I used it onstage. It just misbehaved in so many ways that I've not experienced before. It's like the whole company gave up. But that was a specific era and I'm not necessarily a fan of it. It's not my go-to world but it was fun using these layers of arpeggiated synths for a while. But what I took from that into this project was looking for layering of other types of rhythm and percussion. The reason I do this, I think, is because I'm not particularly good at one type of instrument so I can't just base compositions on sitting down at the piano or guitar. I'm very slow and I need to build on layers. It's more fun and surprising to use my intuition and be kind of shameless in my approach to bring in, for example, a type of conga, and then bring it together with something else and… And maybe this character is sea-sick, for example. I'm basically telling you I'm very lazy!"

Clearly not! Being an experimental artist, do you keep a cache of previously discarded sounds that you can look back on and resurrect?

"In the beginning of working with projects I'd assemble sounds, but I always try to write with them because I want to figure out who am I with this instrument, like I can't just gather things in a dry library and say 'oh, that's cool, that's cool', because that's not how I connect with things. I need to figure out what I can do with this and have some kind of idea of where to place it in my writing. Then I can go back to it, and maybe change that idea and collection of sounds as well. But I can't just have, like 'Jenny's Library of Cool-sounding Drums'. That's not how I do things. I need to connect, so I have hours and hours of attempts at creating combinations of

things. But there's never really a track with one element and one sample that's like an idea in itself."

Do you ever have adventures in found sound? We know you've often previously featured snippets of conversation from here and there on your records…

"Rarely, actually. It's more part of a composition for me. Before this album I remember being in a weird parking lot with these crazy slapback echoes and I started recording rather than going where I was supposed to be going to. I really wanted to use it but there were too many interfering sounds so it didn't end up coming all the way into the album's world. But I will sometimes have recordings, say, on my phone and they sit there and really want to be used and I can't stop thinking about them. I listen to them constantly.

"I also have another song that is based around walking into Carlsbad Caverns New Mexico with lots of bats… I mean, it sounds like I was in a real adventure but it was a tourist walk that anyone can go on. I'm not Werner Herzog! It's more like when something occasionally sounds magical and I'll try to record it. I wish I did it more because I'm sure that it's nicer not to plan so much. I'm a bit like that with photos as well. I should have more good, in the moment, photos with my dog, but I always take too long. It's like, should I do it? I mean she looks so nice and happy! And then she moves."

"I'M NOT WERNER HERZOG! BUT WHEN SOMETHING OCCASIONALLY SOUNDS QUITE MAGICAL, I'LL TRY TO RECORD IT. I WISH I DID IT MORE"

© Jenny Berger Myhre

Given how personal your work is, how do you find collaborating with people and that side of production? Do you find that there's a compromise in yourself or is it something that you enjoy?

"After being in lockdown so many times over the course of a year I did want people in a room. I do think that I always imagined this album being recorded in a studio with other people with all the compromises that will bring. This time I didn't see it as compromise, I felt quite good about it.

"I have been in studio situations before, early on in my career, where I felt like the minute I walked into the studio I was mainly trying to be nice and agreeing with everyone. I can be like that. Not telling anyone what I want. But this time I felt like, well, I already had the arrangements and I felt very comfortable with bringing in these amazing people and saying 'you're going to play what is on the track already'. Then obviously there was experimentation around that, but it was on a detailed level.

"I felt like I'd be quite comfortable with having amazing people who I could tell to improvise, and it might sound amazing, but it might not sound right for the song. What made me feel so comfortable with doing this is that I always feel quite lonely in the lyrical department so my songs are very much arranged around the lyrics. I've written the lyrics very specifically to, say, the beats of a track and when that is taken away sometimes that, to me, sounds compromised. The life is gone and there's a different living being that doesn't fit anymore with the song or the idea of the character. The performance isn't the performance anymore.

"This time I felt like that approach was kind of needed – with a few exceptions on the album, mainly the last track which we redid and I think it still works – the arrangements stayed true to the way I wrote them. They were expanded on and instruments were added I haven't played myself but it stayed true to to the voice and I felt that made it into something that, for me, actually sounded more communal than if everyone just played whenever they wanted. Because that can be a horrible quest. Many times previously I've believed that if you ask people to do whatever they want that's more liberating and more challenging and the music will be better – but it's often the opposite, people get insecure. I love performing tasks and exercises and sometimes I learn much more than that from 'just do your thing'.

"It's difficult because when I'm doing my own thing, I'm in my own space. I'm creating my own music all alone, that's my thing, so when someone tells me to throw in some improvisation

MACKIE.

M·CASTER LIVE

UNLOCK YOUR TRUE SOUND

PORTABLE LIVE STREAMING MIXER

POLAR
EXCLUSIVE UK DISTRIBUTOR

sales@polar.uk.com

polar.uk.com

01444 258258

on top of the stuff that we've already made, that becomes a very strange process for me."

This brings us into the question of mixing and 'handing over your baby'. We noticed that you worked with Heba Kadry. What was that dynamic like?

"I had worked with her before for mastering and that was an amazing experience, and then I heard she was mixing and I just felt that would be a really interesting way to work. At that time we'd also been working so much already. I'm sure that Kyrre, who'd produced with me, is also very, very good at mixing, but I felt like we needed some distance.

"I also felt like I really wanted to work with Heba. I know that there are not all that many women in the mixing and mastering game and there's such a lot of work there to be done. The music industry is really a terrible place for intersectional stuff. I was thinking about that, but mostly I was thinking about her as a person because I'm also very interested in someone who does both. I think that made the mixing much more interesting.

"I was recording vocals for so long after we finished in the studio. I'm not very good at recording vocals in a studio, so I did that at home in 8-minute intervals between the subway going right next to me and the puppy barking. So that was interesting. The room was quite unsuitable, I guess, but Heba did a lot to make it work, in terms of fixing the space, which took a really long time. She gives like 300%. It was kinda almost frightening. She kept mixing into the mastering process, and things were becoming really amazing. She just kept going in between [mixing and mastering] and that is something that I find incredibly valuable. To be able to take a step back while you're mastering as well. It's just incredible what you can do when you open that can of worms. It really helps the finished results become great, as, obviously, during the mastering details can come up, like, say with reverb that's more audible, and she can fix that. So yeah, that's something I'm grateful for."

Do you have any desire to throw yourself into parts of the process you haven't explored yet?

"Because it took a long time to make this album and a really long time to mix it – the mixing and mastering over several months – it allowed time for all these amazing discussions and I am now so severely interested in EQing. *[laughs]* The circumstances allowed me to work with Heba on it. I mean, obviously nobody could go to America and the fact that we couldn't be in the room with her meant I had to constantly try this and that. If we'd been there, a lot of stuff would have taken two minutes. Instead it was two days of me saying like, 'oh sorry, I meant that to be the other way around'. Obviously sometimes embarrassingly. But the fact that I had longer to think around things meant I was super interested in getting details right, especially getting vocals right.

"Obviously I'm not trained but I practise singing and writing in the same instant very much and I did become a vocal nerd in many ways with this album because I had time. Especially in the mixing, because I think a lot of vocal mixing is based on the upper mid-range being quite spiky, which I've just realised I don't want and I think doesn't fit my particular voice. So things like that I've become very aware of.

Is it true that you considered this your "pop album"?

"Yes, it was kind of conscious. I didn't want to work so much with a script with, say, harsh stops and breaks, like where you get 10 songs to put on your computer and then switch between things like a DJ. That's what I've done on some of my previous albums and it's fun but I can't keep doing that.

"For *Blood Bitch* that approach was very integral to the songs. For this album, it was important, to me, to go in another direction and then allow more space for each song to develop naturally. It is natural to be a DJ and just chop things off, but it didn't feel like it was right for this music. So that's why some of these songs I wrote six years ago didn't make the *Blood Bitch* album because they didn't fit that ethos.

"I was interested lyrically in making things a little bit simpler, a little bit more direct, it felt like the personality was there in the singing rather than in the production. I wanted to transfer that complexity into lyrics and into the performance of them. I think I could have spent the time on things like transitions between songs to make it more seamless, like a film soundtrack. Instead I spent more time just re-recording and re-recording vocals to make the focus the transitions between, say, different phrases or words. So everything I've done before that sounds quite different is still here but it's just I'm now interested in working them into different areas. So that, I think, makes it

"IF I CAN HEAR MYSELF IN A WAY THAT DOESN'T MAKE ME SOUND LIKE A SEA-MONSTER VIA A TELEPHONE, IT'S MY HAPPY PLACE"

more of a pop record. Because pop is more interested in letting songs be."

Hard to know what pop is, sometimes…

"True! I guess it's about trying to find melodies and not stop because it sounds poppy. Sometimes I have done that in the past. Broken off a melody that maybe would have gone interesting places if I hadn't stopped it."

What have been the standout pieces of studio equipment you've had in your career? Do you have those attachments?

"With me it's always been mics. I got deeply into the Odyssey for *Blood Bitch* but I never understood it. It was all random. And after I stepped away I lost it all again. I had it then lost it. I forget very easily with instruments. But with mics I'm very interested. I've realised that until a certain point I always had the wrong one. I feel like before this one mic – an old Sennheiser 845 – I wouldn't even consider producing music. I felt like with this and my little Zoom 3-track recorder at the time and the built in effects (I have a long-standing relationship with the delay), I realised I could do this. And I've never really enjoyed singing without mics. On *Apocalypse Girl* I worked with two mics, one was a Placid Audio Copperphone (a tip from an engineer) which is cheap and has a great effect that's fun to have while recording. I really want the right sound when I do vocals because I write when I do vocals and if I have the wrong frequencies I'll sing terribly. In past albums I've really struggled. I bought this very good but at the time affordable 67 copy, a Wunder CM67 mic, and I realised this was the best mic and I've used it for years. And this album I realised that results *do* have something to do with the mic. I also have a Gefell mic that I've used for years, not a fancy tube one, but anyway, I usually have it in front of me and it's very easy for me to sing into this mic. It fits my frequency range, whereas this tube mic I've used makes me offpitch all the time and imprecise."

Do you feel a bit twitchy if you have the wrong setup?

"We ended up rerecording the last track because I went to visit an old acquaintance of mine who also has loads of mics and became enamoured with them. But yes, I'm very much in connection with my mics. If it's not right I have a terrible time when I perform. But on the other hand, I'm the type of person who'll say, let's just finish the soundcheck, even if things aren't perfect. So I can still perform but if I can hear myself in a way that doesn't make me sound like a sea-monster via a telephone, it's my happy place."

You've done some quite cool shows. Anything different planned for these next tours?

"It's going to be very different. I played my first one last Friday. I had a mic on a stand. A monitor. And I took a chair from backstage. And that was it. So that's my elaborate setup! And for many years I had vocal effects and guitar pedals and a converter but I got very sick of that – because I want to look at the audience – which is why I changed to not doing anything. With Lost Girls I play a synth and have a computer but it's just for the setlist and to see what tweaks I'm doing on the synth. And a Minilogue because it's easy to bring."

So it's about not putting a wall up?

"I've had elaborate props – like a tent – but apart from that – oh and some silicone hands on sticks, and gloves,performing on synths, and make believe synths. And props because I'm interested in the rhythm of writing and showing that on stage. But after all that [*laughs*], and dealing with venues and fire safety, it's a lot. In the music sector – unlike performing arts – you're not going to have a lot of the time, and you'll be compromised. This time I just want to have fun. And not have 90 emails about a tent. We'll see what happens." FM

WANT TO KNOW MORE?

Classic Objects is out now via 4AD and she is currently touring, more from **jennyhval.com**

Spring Sale

5 ISSUES FOR £5/$5/€5*

BIG SAVINGS ON OUR BEST-SELLING MAGAZINES

SAVE 90%

SAVE 89%

SAVE 88%

SAVE 91%

SAVE 92%

SAVE 90%

SAVE 90%

SAVE 77%

See the entire range online at

www.magazinesdirect.com/spring22

or phone **0330 333 1113** and quote code **SP22**

*Offer closes 31st April 2022. Offer open to new subscribers only. After your trial issues, your subscription will continue at the price shown at the point of purchase. Saving is based on full subscription rate. We will notify you in advance of any price changes. Please allow up to six weeks for delivery of your first subscription issue (up to eight weeks overseas). If the magazine ordered changes frequency per annum, we will honour the number of issues paid for, not the term of the subscription. Payment is non-refundable after the 14 day cancellation period unless exceptional circumstances apply. Selected magazines are available on this introductory offer and exclusions apply. For full terms and conditions, visit www.magazinesdirect.com/terms. For enquiries please call: +44 (0) 330 333 1113. Lines are open Monday-Friday 9am-5pm UK Time (excluding Bank Holidays) or e-mail: help@magazinesdirect.com. Calls to 0330 numbers will be charged at no more than a national landline call, and may be included in your phone provider's call bundle.

Roland JX-08/JD-08

Roland's long-running Boutique range reimagines another pair of classics – the JD-800 and JX-8P. **Leo Maymind** asks what they offer 2022 users

Roland's Boutique range has been around for a few years now and has picked up scores of fans from around the world. These small desktop designs put classic sounds into portable packages with smaller controls and digital streaming of audio built in, all while allowing users to take them from studio to stage in petite, battery-powered form.

Roland has clearly been listening to its user base, as it recently announced two more models in the Boutique range that did away completely with the pitch and modulation strips of previous models, creating much more surface area for hands-on controls. These two new synths are the JD-08 and JX-08, which, as you've probably guessed, are emulations of two of Roland's lesser-known synths from the late '80s and early '90s.

The JD-08 is an emulation of the JD-800, a synthesiser that came out for the first time in the early 1990s and was used in many soundtracks by a score of composers and producers alike. It featured a unique four-part architecture where each Patch was a combination of four Tones, each of which are based on a sample as the oscillator source, as opposed to the VCO designs of previous Roland machines.

The JX-08, meanwhile, is an emulation of the JX-8P, an all-analogue synth from the mid-'80s that unfortunately was hobbled by a very user-unfriendly interface, unless you were fortunate enough to own the accompanying PG-800 controller, which put all of the controls into an easy to understand add-on programmer. The JX-08 recreates all of the controls that were on the PG 800 on its face plate.

The JD-08 is a complex synth at first glance, given its depth. It's bi-timbral, meaning two patches can be recalled and then alternated between. Each Part, also confusingly called a Patch in the online manual, can be made up of up to four layers at once, named Tone in Roland speak. If both Parts are set to the same MIDI channel, you effectively have eight layers to edit at your disposal, though you can only edit one Part at a time, so four layers at once. A bit confusing at first, but it gets easier to wrap your head around after working with the JD-08.

The JX-08 is a bit easier to understand because even though it is also bi-timbral, each layer can only be made up of a single Patch, so there are effectively two sounds to work with at any given time. Let's dive into both of these new Boutiques and see how they work.

9 ways to get more out of these new Roland Boutiques

Go deep with these expanded Boutiques to enter your own synthesis nirvana

Bi-timbral settings

1 Both new Boutique models are bi-timbral, so you can play two different sounds at once, though you access this functionality differently on each model. On the JX-08, it's a simpler affair – press the first two buttons in the step sequencer, labeled Part A or B to recall either Part. On the JD-08, hold the Note button and press Tone A or B to access the respective Parts.

Get sculpting

2 Both new Boutiques have a wider range of effects than any previous models, which were mostly limited to chorus and a not-very-tweakable delay. On the JX-08, there are 17 effects to choose from, including such novelties like a Lo-Fi Compressor and a Pitch-Shifter. To get under the hood and tweak these effects, you need to enter the menu setting by pressing and holding both Chorus buttons at once. You can then choose which effect you'd like to recall using the Value encoder. As you scroll through effects, you'll see that each has their own range of parameters to tweak, some of which are very extensive. These effect settings can be saved per Part. It's also possible to use one of the multi-effects and the Reverb at the same time, so quite a lot of sound sculpting possibilities are available here.

JD-08 effects

3 The JD-08 also has a wide range of effects, each with a plethora of parameters to adjust under the hood. Given that there are no effect faders or buttons on the more densely populated front panel of the JD, compared to its sibling, you access these effects by pressing the Effects button on the left-hand side of the front panel, and then again use the Value encoder to scroll through the various options and parameters. There are only seven effects on the JD-08, grouped in two pairings labeled Effect A and Effect B. Distortion, Phaser, Spectrum, and Enhancer all reside in Effect grouping A, while Chorus, Delay, and Reverb reside in grouping B.

The full spectrum

4 Most of these effects are pretty self-explanatory, as we've all used Chorus, Delay, and Distortion effects before. Spectrum is essentially a six-band EQ which ranges from 250Hz up to 8kHz. Each frequency range can be boosted or cut by 15dB, and there's a width control that applies to all of the ranges simultaneously. Using Spectrum can help cut some nasty overtones that you might get in complex, layered patches.

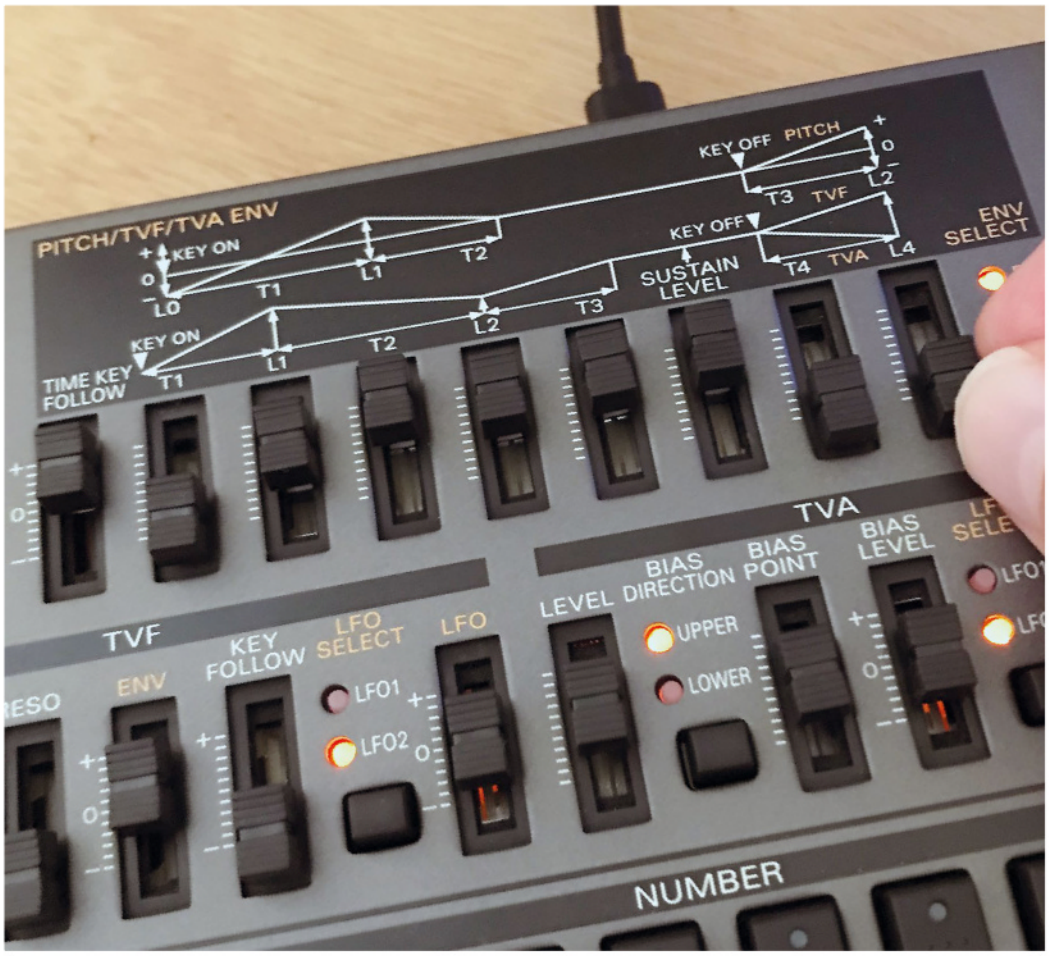
Mix-in jack

5 These new Boutiques continue the trend of having a handy mix-in jack via 1/8" input, which allows you to mix external sources with the sound of either synth. While there's no volume control, this allows each of the boutiques to be used without a mixer for a more compact setup, greatly increasing the portability of using these instruments without adding bulk to your setup.

Furthermore, no need to look for old, outdated cables, as the JX-08 and JD-08 have now both been updated to be powered via USB-C. You can also still power each the old fashioned way with four double AA batteries, making each synth a truly portable experience.

Arpeggiating

6 Unlike previous models in the Boutique range, both the JD-08 and JX-08 have arpeggiators that are more complex than they seem on the surface. Go into the Arpeggio menu by holding down the Arpeggio button on each model, and you'll see a plethora of parameters that can be saved per patch. It's possible to adjust playback rate, of which you can choose from six different values including eighth note and 16th note triplet feels, which are quite rare for any arpeggiator. There are also five different playback modes to choose from, the usual suspects of Up, Down, and Up/down are all included; but there is also a Random mode, as well as a mode to play back the notes in the order you entered them, which is quite handy for creating some interesting sequences.



8-stage envelope (JD-08)

7 The eight-stage envelope on the JD-08 is also worth a look, as this envelope is far more capable than the usual ADSR envelopes on most subtractive synths (like the JX-08). The envelope on the JD-08 can control the Oscillator's pitch, Filter cutoff, and overall amplitude level (TVA on the JD), or it can control both filter cutoff and TVA level at once. The envelope has four faders for Time and four for Level, giving users precise control over how this envelope is shaped. While the small faders are hard to be precise with, careful programming can lead to otherworldly pad sounds that are near impossible to program on the JX-08.

JD-08 controls

8 While the sonic architecture of the JX-08 is fairly self-explanatory to those who have experience with subtractive synthesis, the JD-08 is a bit more complex, as you'd expect looking over the plethora of controls. The first area of the controls that is a bit of a head-scratcher is the Palette controls, as these change function based on whatever fader was last touched, but on a per-tone basis. So the Palette control for Tone A controls whatever control was last touched for Tone A only, and the same for the rest of the Tones. This means that this section can act as a mini "Performance" mode of sorts, as each of these faders, with their slightly longer throw, can have their own individual assignments. One can control Filter Cutoff, another LFO rate, another LFO depth on Filter Cutoff, etc.

Going MIDI-less

9 Finally, if you're looking to work on programming sounds without the benefit of a MIDI controller or keyboard being available, you can use the Bank/Number buttons on each of these new Boutique models as a built-in keyboard. To do this, simply press the Note button on each, which will then duly decouple the bottom row of buttons from selecting/changing patches and instead allow it to function as a simple, one octave keyboard. You can change the octave value of these notes as well, with steps 14 and 15 on each Boutique, so that you aren't limited to a one-octave range.

Integrating the JX and JD into your DAW workflow

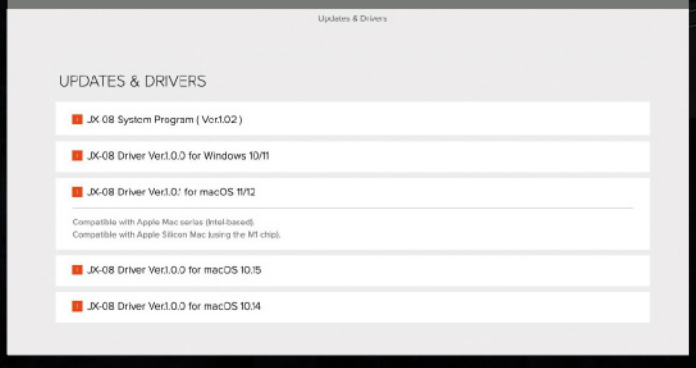
Use the full capabilities of both new Boutiques over USB to make the most of them. Here's how…

01 >

There are several ways to integrate these new Boutique synths into your DAW workflow. The simplest is the old fashioned way with a normal 5-pin MIDI cable connected from your controller keyboard into the MIDI input of either synth. However both Boutiques also have MIDI over USB functionality, so one USB-C cable eliminates the need for other MIDI connections.

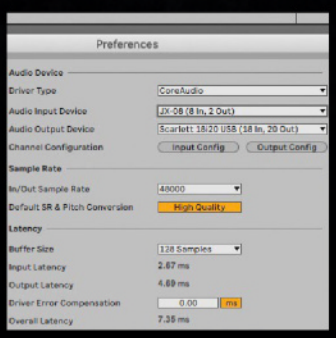
02 >

As with the previous versions of the Roland Boutique series, it's possible to use audio over USB with both the JX-08 and JD-08. In order to do so, you'll have to download and install the appropriate drivers from Roland, as neither synth is class compliant.



03 >

After doing so, you'll be able to digitally stream each Part from either synth individually into your DAW, as well as a separate audio track for whatever is being connected to the Mix In input, allowing each synth to act as a quick audio interface.



04 >

Given that each of these synths are bi-timbral, its possible to assign each timbre to its own MIDI channel, or the same channel if you want to layer. You can do this in the MIDI settings menu, which is accessed by long-pressing the Menu button on each and then pressing Step Button 3.

05 >

While it's not possible to control the volume of the Mix Input via a physical control, there is now an Input Level control hidden in the System Settings. To access this much-requested feature on the JD-08, press the Common button and then Step 10 to enter System settings.

06

There you'll see, In.LV, which stands for Input Level, allowing you to adjust this volume. It's a similar process on the JX-08; press Menu and then Step 4 in order to enter System Settings. Conveniently, Roland has also offered a Global tuning setting that can also be saved for each synth.

BUILT TO CAPTURE
EVERYONE'S
SOUND

Play freely. Record seamlessly.

Pro Tools | Carbon™ has everything you need to keep the band on track. Create low-latency cue mixes for every player so you can play without delay. Plus, with pristine I/O, Avid has you and the whole band covered at every turn.

Learn more at avid.com/carbon

© 2020 Avid Technology, Inc. All rights reserved. Avid, the Avid logo, Pro Tools | Carbon, and POWERING GREATER CREATORS are trademarks or registered trademarks of Avid Technology, Inc. or its subsidiaries in the United States and/or other countries. All other trademarks are the property of their respective owners.

EXCLUSIVELY DISTRIBUTED BY HAL•LEONARD® EUROPE

POWERING GREATER CREATORS

ADVERTISE HERE

Do you want to advertise in a magazine delivering the technique and technology behind the hits?

Call now on **01225 442244**

LITTLE BOOTS

Danny Turner chats to Little Boots on returning to her DIY roots and involvement in the upcoming 'ABBA Voyage' live shows

© Sam Taylor-Edwards

Thrust into the limelight in her early 20s, Little Boots' Victoria Hesketh's debut album, *Hands* (2009) was a top 10 hit, introducing her to a raft of big name co-writers and producers to help shape her love of disco and '80s synthpop. Later albums *Nocturnes* (2013) and *Working Girl* (2015) were similarly collaborative.

Whilst grateful for the input of others, such loss of control meant Hesketh was slowly losing confidence in her ability to write and record independently and needed to return to a more DIY approach. As the pandemic struck and isolation became the norm, it wasn't long before Hesketh was forced to make good on her promise to take full ownership over her music.

The result is her fourth album, *Tomorrow's Yesterday*. Both nostalgic and future-facing, and almost entirely written and produced by Hesketh, it's arguably her most cohesive and consistent collection of songs to date. We also reveal the Little Boots star's frenzied excitement at being chosen to play a key role in ABBA's upcoming *ABBA Voyage* live production.

How have you found the experience of using Patreon to fund the recording of your new album *Tomorrow's Yesterday*?

"I was a little sceptical at the start, but obviously when Covid hit, all of my gigs were cancelled overnight and I was wondering what on earth I was going to do. Thankfully, the realisation that musicians were going to be screwed for quite some time seemed to resonate with a lot of people. I'd done a Kickstarter the year before and people had been saying I should give Patreon a go, so I gave it a whirl and got an amazing response. Luckily, the one thing that's kept me going through the last decade or so is that I've got a really loyal core fan base to support me. They basically funded the whole record, which was great because when you release music on a label there can be an ulterior motive. Patreon's a lot more personal [than Kickstarter]. There are different levels so you might pay a fiver for access to the news feed or live stream or £30m a month and once a year you'll get to choose a song that I'll record and dedicate to you. Even though that's a lot of money, I feel that's a really unique thing to offer fans and I've covered everything from Depeche Mode to S Club 7 over the past year *[laughs]*."

Does the level of expectation increase, knowing that your record is being funded by your fans, and is that a good thing or added stress?

"I've put my own money in as well, but self-releasing an album is such a huge pressure that it's really liberating to be making music for the fans funded by the fans. Throughout Covid I also did live streams every month and that too created a special community and something that we all looked forward to. Now I'm excited to see how I can fund future projects on Patreon because it's been a game changer for me."

It must be encouraging to know there are platforms out there to help artists earn money in the age of digital?

"I'm glad attention is being paid to things like Spotify earnings. Only the top 10% of artists make any money on streaming platforms, so it's not enough to make a living from, especially now that touring has become so unstable."

Would it be fair to say that *Tomorrow's Yesterday* is different to your previous albums in that it has a more classic pop sound?

"There are parallels between *Tomorrow's Yesterday* and the first album, *Hands*. It's really about me making good pop songs and writing without an agenda. I just got back into that headspace of reconnecting with the feelings I had when I first started writing everything on the piano before building up the production side. As a career moves along with all its ups and downs, it's easy to forget that feeling, so it was nice to return to writing without being influenced by stuff like playlists and algorithms rather than what I thought was good."

There is a subtle disco influence too…

"I wanted it to have more of a disco feel as I love disco and have always been more associated with the '80s end of electro. I've wanted to create an album that has a warm disco feel for a long time and because *Tomorrow's Yesterday* is the first record I've produced myself that also puts a different spin on it."

You typically co-write your tracks but this time decided not to. Have you got to a point in your career where you want full ownership over the music-making process?

"It was mainly due to Covid and the fact we couldn't work with other people. A lot of artists do Zoom sessions and I've had good results working remotely in the past, but I prefer to be in the same room and connect with people when I'm writing my own stuff. Over the last few years I've done a lot of EPs and collaborations and not made a full album for a long time, but I knew at some point I'd need to take more of a central role. I had a bit of imposter syndrome and wondered if I could pull it off, but when Covid happened there was no excuse, I had to do what I said I would and that was a good push. In the end it was a silver lining during an awful time."

You co-produced the album too and it sounds more cohesive because of that. Does achieving a cohesive sound become problematic with different producers working on every track?

"Absolutely and I think that's one of the biggest challenges with modern pop music because a lot of the pop records I listen to seem to struggle with cohesion. Most of my fans say that my second album, *Nocturne*, was their favourite and that was an album that I wrote with lots of different people before rerecording the whole record with Tim Goldsworthy to give it that consistency. Although it was quite a long time ago now, I remember really worrying about that with my last album *Working Girl*. You do a ton of sessions with people and eventually a sound and direction takes shape, but it's a monster A&R job trying to svengali all these different songs that are often written in different styles. When that's the case, you need a strong concept or narrative to your lyrics, and I think that's what held *Working Girl* together. With *Tomorrow's Yesterday,* I hardly worked with other producers and on the few songs that I did I also worked on them remotely."

Did you mix the album yourself or are you still leaving that to someone else?

"Oh god no, I can't mix – I just don't have the patience to sit down and EQ a snare drum. I get excited by sounds and songs, but can't get excited by reverbs. I'm in awe of great mixers and what they can do for a record, but I've been in studios for years and worked with some incredibly talented people like Greg Kurstin and Richard X, so I've absorbed a lot by osmosis. When I started out, I wasn't really producing but I at least recorded my own demos and I think the whole major label pop system can give you a confidence crisis because I was put in with so many big producers from day one that I lost all faith in my ability to do that side of things. When you

get such cool results from working with amazing people like James Ford and Hercules and Love Affair, you feel they can take your music to a whole new world, which is very exciting, but at the same time you lose confidence in yourself."

How did you break through those barriers?
"What I didn't realise is that I'd been learning all the time, so when it did come to sitting down and making this record it wasn't as hard as I thought. I just needed to trust my ears and if something on the production side got difficult I'd look up one of those YouTube tutorials on Ableton. What you do eventually realise is that those things that you love in great records are quite often accidents or weren't carefully thought out, and that gives you confidence to think that as long as it sounds good it doesn't really matter how you got there. Before I delivered the demos to my manager we discussed bringing in a 'proper' producer to reproduce my sketches, but he said, what are you talking about, these are some of the best produced demos I've heard. I'm still amazed when I listen to it, but that's great going forward because self-producing does make things a lot easier – and cheaper *[laughs]*!"

Piano is woven into a lot of the tracks. Was it a case of leaving certain aspects of the demo process intact so the instrument could help create that classic pop sound?
"It was a really conscious decision. I've played piano since I was five years old and it's always been a big part of my writing process. I'd been listening to a lot of classic '70s writers like Elton John and Carole King, so I find mixing piano with synths an interesting balance. Some of the songs are based on Rhodes and clavs, but there is generally a main, chunky keyboard part in everything. I think ABBA was a big influence too, because there's piano in nearly every song of theirs and a load of synths, which gives it a really rich sound."

The title track sounds like a bit of an ode to The Beatles and *Love the Beginning* has a slight Bee Gees feel. Was infusing those references conscious or subliminal?
"*Tomorrow's Yesterday* is quite an odd song for me. I wrote it with my friend Liam and we wanted to do a big over-the-top end of a movie song, which is quite out of character for me. A lot of the album is looking forwards and back at the same time, which is quite reflective of where I am in my personal life. Those references you mention are probably quite subliminal, but I find that the Bee Gees' backing vocals are incredible, so that's definitely something I thought about in terms of layering and using call and response techniques. It's an ABBA thing too – you've got this hook but now you can put a whole other hook in the backing vocals; they don't necessarily have to follow what the main vocal is doing."

Despite being a trained pianist, do you find yourself getting locked into using familiar chords?
"I push myself to find new places to go with the piano. There's definitely a Chic influence on some big chords, so continually listening to classic artists who put the piano at the centre of songs is helpful, but I actually retrained classically a few years ago in Los Angeles. I was walking down the street and came across this cute pink building with pianos and had to go in. Inside I met a lady called Riko Weimer who told me to play something for her, and then she said, OK, you can be my student, come in next week. I didn't dare say no. She's a concert pianist and I've been studying with her for two or three years now and getting that skill back has been so liberating. I'm not doing crazy, technical stuff when I'm writing songs, but having that new information is really inspiring. You suddenly see places you couldn't go before."

The track *Crying On the Inside* is a big pop statement. Is there a story behind that?
"That was actually an old song I wrote five years ago for Carly Rae Jepson, but she didn't take it so it ended up sitting in the pop graveyard of my hard drive. I've always really loved the song and it bugged me that nothing had happened with it, but when I played it to my Patreon subscribers they thought it was amazing and said I should put it on the album. I started to re-produce it and it was quite hard trying to put a fresh spin on the song, but I'm so happy it found a new life."

We're guessing that's a CR-78 drum machine ticking along on the track *Deborah*?
"Well done. I wrote the track with a friend, Ned Medlar, and he's got some great gear in his studio including all these '70s drum machines. We were listening to The Alessi Brothers' *Seabird*, which is a gorgeous tune that starts with a great drum loop. I've always been into mixing drum machines with real drums, so we just got a drum loop up on the CR-78 and sampled it. There's quite a lot of drum machines on the record. I used to write little loops on Casio keyboards and that still feels like a very natural way to go for me."

Your home studio is in storage now, but did most of the recording take place there?
"It all started in Seattle where I spent time at a writing retreat in the snow, in a hut, with a fire and a bag of synths. Then I ended up writing the last bit on a beach in Belize making a vocal booth out of a mic and some pillows in the closet. Some of it was recorded in Blackpool and London too, so my studio has been very mobile recently, but the reality is usually a giant web of wires everywhere and loads of things not working."

What pieces of gear were you carrying round with you?
"Little drum machines and keyboards. As I've worked with them for a long time, I have a lot of Korg gear like the Volca Beats, and the Roli Seaboard is good for travelling. Years ago I

"WE DISCUSSED HAVING A 'PROPER' PRODUCER REPRODUCE MY SKETCHES. HE SAID, 'WHY?', THEY'RE SOME OF THE BEST PRODUCED DEMOS I'VE HEARD"

"KNOWING THAT I CAN WRITE AND PRODUCE MAKES ME FEEL UNSTOPPABLE AND REAFFIRMS MY BELIEF I CAN TRUST MY GUT INSTINCT"

had a blue Roland SH-101 keytar that got stolen and I was so sad about that, as they're really hard to get now, so when Behringer brought out the MS-1-BU clone I got one of those and it's actually on the cover of the album. I always had a lot of analogue stuff and now I have all the soft synths in the world, it feels like cheating, but I'm looking forward to getting back to having a full-time base with lots of hardware synths."

You've never come across as someone attracted to software…

"I like toys with buttons rather than things that are complicated with loads of sub-menus. One of the things that I loved using on the record was the Fisher SC-300 Boombox, which was an '80s gimmick with a keyboard on top and a built-in drum machine that you could take to a party and play piano and beats with. I also used the Tenori-on on one track, which I'm quite well-known for, and the Dubreq Stylophone S2. I like things that are playful, tactile and not particularly well-functioning because I think they bring out creativity."

How do you look back on the experience of taking full control over this record?

"The new album has definitely given me more confidence. For quite a long time I was trying to write for someone else or for an idea of what other people wanted or was cool, but now I feel I've reclaimed my space. Doing the production has also been massively empowering; just knowing that I can write and produce makes me feel unstoppable and has reaffirmed my belief that I can trust my gut instinct."

A few years ago you were starting to show an interest in using modular in the studio and live. Did that progress?

"I didn't go down that hole and in hindsight I'm relieved I didn't; I know people who have nearly got divorced due to their modular obsessions *[laughs]*. My touring keyboard player has some Eurorack in a suitcase and when he played modular on tour it did sound amazing, but I left him to get on with that. I'm quite lo-fi on stage these days. When you're performing you need to be engaged with the audience."

When did you first hear that ABBA wanted you to perform on their new tour, ABBA Voyage?

"A friend of mine James Righton, who's in a band called Klaxons, called and asked if I wanted to audition because he knew I was a big ABBA fan and a good keys player. Obviously, I wondered if this was for real but Benny and Björn were at the audition and it was amazing. I had to get the job because it's made for me, so I prayed and prayed and got a call the next day saying I was in."

What was the audition like?

"Very relaxed. There's a 10-piece band in the live show, so we all got put into different groups and got sent a few songs in advance. I just had to play the songs – no pressure, Benny and Björn in one corner and nine other amazing musicians I'd never met before. I'd been practising and knew the songs inside out anyway, but even at that early stage I got goosebumps as it's such a privilege. I've just got back after three weeks of rehearsals in Stockholm playing those songs, which are pretty much the best. The piano parts are very challenging but it's so much fun playing iconic riffs from *Voulez-Vous* and *Gimme! Gimme! Gimme!* with the people who actually made them. I'm really excited for people to come along and see and hear it for themselves."

You'll be on keyboard and backing vocal duties. What tools are you using onstage? Have you seen the ABBA avatars?

"I wish I could delve into the details and probably will in a couple of months, but right now I'm not allowed. Regarding the avatars, ABBA filmed the performances covered in 600 tiny cameras. Their performances were then skinned with this technology so they look just like they did in 1978, or whenever they were last on tour. It's the closest you can get to going to see ABBA at their peak, which is incredible really – and they're scarily lifelike. It's so exciting to be part of something that's so revolutionary and ground-breaking. It's also a bit scary to think that maybe we're all going to be replaced by avatars someday."

You've worked with so many legends from Phil Oakey to Jean-Michel Jarre and now ABBA. Anyone else on your list?

"I honestly think that working with ABBA has taken the biscuit, but I'd love to see how Elton John works because he's such a fantastic songwriter. I'd also love to see what people like Daft Punk get up to in the studio. All of those collaborations you mention were different though; Phil Oakey was an idea that my label came up with and Jean-Michel approached me, but Benny's been such a huge inspiration for so long."

Will you have time to tour your own album considering you have these ABBA shows coming up?

"You want to do all the shows and have all the bells and whistles but it's so expensive. I've got so many fans saying 'come to Nottingham' or 'come to Santiago'. They're spread all over the world, but quite thinly, so it's difficult to do full tours. I've got a couple of dates in the summer and hopefully we'll do more towards the end of the year. We're also taking about doing some more live streaming, but the next few months are obviously going to be a bit hectic." FM

WANT TO KNOW MORE?

Little Boot's new album, *Tomorrow's Yesterday,* is available now from On Repeat Records. For more, visit **littlebootsmusic.co.uk**

DJ Q's *You Wot!* encapsulates the links between grime and bassline

Bassline

Born in late '90s northern England, bassline was nearly destroyed by police but may finally be making a comeback

Genres often fade away through lack of interest, but few can match the dramatic tension of bassline, a genre which nearly died out completely thanks to outside pressures. Despite establishing itself as a distinctly English take on garage and house, bassline was threatened with extinction at the hands of the police after developing a reputation for violence at club nights.

As UK garage declined in commercial popularity around the early 2000s, the scene splintered and went in different directions. Some producers and DJs embraced the darker sounds and evolved into the early roots of grime and dubstep. In the north, others leaned into four-to-the-floor garage sounds, which had lurked quietly in the background while the syncopated sound of two-step garage hogged the limelight.

To a hardcore of fans in the Yorkshire city of Sheffield, the new sound of bassline music was initially synonymous with the Niche club, a notorious venue in which the sound developed in the late '90s. With echoes of the Northern Soul tradition of hunting out rare tracks from the US, Niche's resident DJs including Jamie Duggan, Shaun 'Banger' Scott and Chris Bailey began searching for obscure remixes and B-sides of house and garage tracks, settling on darker, moodier cuts like Armand Van Helden's *European Vacation Mix* of Faithless's *Insomnia* and Loop Da Loop's Uptown Mix of Todd Terry's *Something Goin' On* (both 1997). Before long, bassline became established as a distinct sound in its own right, balancing lighter vocal elements with darker sub-bass and intense 135+ bpm beats. In much the same way as house music was named after the Warehouse club in Chicago and garage after the Paradise Garage in New York, bassline was initially widely known as Niche music.

From a production perspective, bassline has a lot in common with house and garage. Early bassline coincided with the advent of more powerful software. Things have evolved, but at its mid 2000s peak, production largely revolved around similar sounds to house: 909 drums, Korg M1 organ. Some producers did step out of that paradigm, however; DJ Q's *You Wot!*, featuring MC Bonez (2008), is a bassline classic but the production and vocals show that bassline was a cousin to grime.

Crossover hits like T2's *Heartbroken* (2007) and H Two Oh's *What's It Gonna Be?* (2008) proved that bassline could enjoy commercial success just like UK garage had done previously, but there were big problems in the background. The bassline scene's biggest threat came from its reputation for violence. Insiders argue that the trouble was sometimes exaggerated, but police had the scene in their sights and seemingly targeted clubs and promoters rather than drug dealers and gangs. The original Niche venue was closed down by police after more than 300 officers carried out a drugs raid in 2005 at a cost of £680,000. Small quantities of drugs were found as clubbers were searched but no convictions resulted from the raid.

Bassline DJs felt persecuted and believed that police were trying to kill the scene. Duggan has said that his association with the club made it almost impossible for him to get DJ bookings at other events, with promoters and police associating the club so strongly with trouble that events were shut down and licences refused. In the face of these challenges, bassline declined in popularity from its peak around 2008/9. A second Niche venue was opened after negotiations with police, but closed in 2010 following five stabbings outside the club in a night.

Some of the bassline hardcore such as DJ Q, Duggan and TS7 kept the faith, but it wasn't really until the mid-2010s when bassline slowly started to creep back into the wider consciousness. The launch of The Bassline Festival in Manchester in 2015 is cited as a turning point, a 5,000-capacity event featuring younger acts like Flava D alongside scene legends like Shaun 'Banger' Scott. Renamed Bassfest and embracing a broader spectrum of bass music, this year's main event takes place at the huge Sheffield Don Valley Bowl in July. The resurgence of interest allows it to sit comfortably in the broader spectrum of UK bass and dance music. Not bad for a genre which once looked like it might die out completely. FM

Three eras of bassline

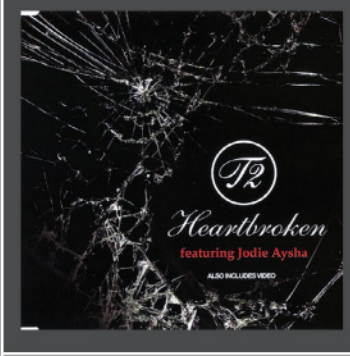
THE NINETIES

Todd Terry - *Something Goin' On (Loop Da Loop Uptown Mix)* (1997)

1 You can trace the evolution of bassline way back to the early '90s, but the roots are most clearly audible from the late '90s on. Featuring vocals from the legendary Jocelyn Brown and Martha Wash, Terry's original version is a true house classic. This remix by London producer Nicolas Dresti – now better known under his Space Cowboy alias – was adopted by Niche resident DJs as the club was establishing itself in the early days of bassline. Adding Jamaican influences, wild sound effects and warping basslines, the Uptown mix helped lay the foundations for bassline.

THE NOUGHTIES

T2 featuring Jodie Aysha – *Heartbroken* (2007)



2 Probably bassline's first proper crossover hit, and still one of the biggest, Leeds producer T2's *Heartbroken* showcased the songwriting and vocal talents of Jodie Aysha. With its distinctive twisted basslines and chopped-up vocal samples, *Heartbroken* hit number two in the UK singles chart and introduced a wider audience to the bassline sound. It reportedly remains the most requested song of all time on BBC Radio 1.

THE NOW...

Bad Boy Chiller Crew – *Don't You Worry About Me* (2021)

3 Bradford's BBCC might seem an unlikely prospect on paper, starring in their own TV documentary, churning out viral prank videos and comedy skits, plus helping to usher in a new generation of bassline. Released via legendary UK dance label Relentless Records, *Don't You Worry About Me* locks into classic house and garage production styles with an infectious organ riff courtesy of producer Tactics.

© Peter Takacs

GÁBOR LÁZÁR

Matt Mullen talks to the Planet Mu artist about the liberating nature of software and transcending physical and music boundaries

Even if you take a different approach yourself, there's no doubt that those who create their own music-making tools, building their own instruments from the ground up, often sound like nobody else. One such artist is Gábor Lázár. Working in Max, he designs and builds "compositional interfaces" that allow him to circumvent the traditional, linear ways of working that popular music software promotes, developing a musical language that's all his own and arriving at unexpected musical conclusions in the process.

Lázár's latest album, *Boundary Object,* collects the results of these experiments, presenting raw and unedited snippets of the music that his self-devised software instruments have dreamed up and spat out, recorded in real time. Working with a basic laptop-and-speakers setup depicted on the album's cover, he's created some of the most adventurous electronic music we've heard this year, proving that with a decent computer, enough ingenuity and a desire to do things differently, there's not much you can't do.

Could you walk us through the "self-designed compositional interface" that you were working with to produce these tracks?

"My intention was to build an interface that would allow me to create structures that would be very complicated or impossible to make by using widely available software. I would like to work in the opposite way to this type of software. While music-making software is designed to arrange musical elements linearly, my interface was designed to deconstruct them in a non-linear way."

What do you find most creatively stimulating about building your own instruments, or compositional interfaces, in software?

"I think I just like to be independent and create my own universe of things. I remember when my dad wanted to show me how to do certain things in the garden or around the house. Most of the time I refused to do it the way he showed me – not because I thought that his solution was wrong, but because I wanted to explore the situation and to find my own way. That's very stimulating to me. I think a lot about why I make such decisions, why I make this kind of music, and it's very interesting that I find the answer around everyday life and around personality.

"There is a thought that comes to mind frequently: why do we keep music in these linear forms? Moreover, why do most synths, drum machines, software or any music technology still offer technically almost the same techniques that we already had 30-40 years ago?

"We could radically change our understanding of music if we allowed music technology to do what it can do. Do the models offered by certain cultures and traditions lock us into already known structures and symbols? It is a problematic topic and probably there isn't a right answer to it, rather I wanted to focus on such creative and technical solutions that are moving in a hybrid direction."

"IT IS ESSENTIAL FOR ME TO BE ABLE TO WORK ANYWHERE. I DON'T WANT TO MISS OUT BECAUSE OF PROBLEMS WITH LOGISTICS AND LACK OF SPACE"

You've said before that you're interested in generative techniques and using "musically non-relevant sources as compositional tools" – could you expand on this?

"I cannot play instruments, I have no knowledge which could be musically relevant traditionally. So basically, every idea I have is musically non-relevant. For instance, using visual content to create audible material. It's a very common technique, but a good example to show what I mean."

How do you feel your music has evolved since you released *Source* in 2020?

"*Unfold* and *Source* were both made in Logic. As a teenager at the age of 15 I made a lot of music with software like Reason, Cubase, Nuendo which is typically used to make widely accepted forms of electronic or electroacoustic music. At that time I really enjoyed using them – especially Reason. These programs are legitimate parts of the history of electronic music and at the same time they are important stages of my early explorations. I wanted to use that kind of linear, timeline-based software again and make music which somehow would extend my works to other territories than those where I have been in before. *Unfold* and *Source* look back while *Boundary Object* looks forward, but they share common ground I think."

The press release for *Boundary Object* tells us that the tracks were recorded in real time and unedited. What draws you towards this "one-take" way of working?

"Even though it's computer music, things happen intuitively when I interact with my interface, decisions are made quickly when recording, and sometimes I can't reproduce the same nuances. I think it adds some value, or at least it puts the listener into a different perspective."

The album cover for *Boundary Object* shows a room with a simple setup, a laptop and two monitors. What do you find appealing about this minimal setup?

"As a teenager, I couldn't afford to buy synths, even though I had some cheap gear, and also made PCBs and built guitar pedals. Later, when perhaps I could have bought proper synths, then I didn't want to buy something that most producers already have and use. I think I just found many creative outputs using software such as Max/MSP, where I can create my own language.

"It's essential for me to be able to work anywhere. I don't want to miss out because of problems with logistics and lack of space. This photo of the kitchen I took where I worked for around two weeks in Prague. I felt really focused there, even if it was a kitchen with the fridge and washing machine behind me. I think the photo carries the message that ideas can emerge without costly tools too."

We can hear fragments of more conventional club rhythms, patterns one might associate with a club context, within the tracks on *Boundary Object*. Where does your work stand in relation to more traditional strains of dance music?

"There is a close connection, of course. I used to DJ quite a lot during my late teenage and early 20s. I played vinyl, and used to go out a lot from the age of 14. Me and my friends grew up in a suburban district, actually in the last street of the city at

Budapest's border. There were no night buses at that time so we stayed in the clubs until morning. So probably this era of my life left strains on my identity, on my personality and on my recent works as well."

The title of *Boundary Object* refers to a concept drawn from academia. Do you feel that an understanding of the conceptual context or background of the record is at all essential to how you'd like it to be received?

"Not at all. I'm absolutely not an academic type of person and I don't like to overthink it at all, but certainly there are a couple of interesting aspects around the title. Once my girlfriend handed me a book about ethnography and cultural anthropology and I randomly opened it to a chapter called 'boundary object', which was about how an object can translate between different groups of people with different kinds of knowledge and background. So it is something that connects different social worlds and helps them collaborate.

"I connected this to music immediately, to different subcultures around music and to people who listen to different kinds of music and to artists who make different kinds of music. And how something could translate between them. I picked this title when the album was done so that there was no intention to synthesise the title with sound, but I hope that this record can bridge different scenes and different people in some way."

"PLAYING LIVE IS NOT JUST ABOUT THE PERFORMANCE AND COMPOSITION BUT IT'S ABOUT LOUDNESS AND PHYSICAL ASPECTS OF SOUND AND SPACE"

How do you approach performing this kind of material live? Are you recreating tracks from the album in your live show, or working with the same instruments and patches, or are you improvising new material?

"It's a mixture of these things. Most of the time I work with stage lights as well. When I play live, I interact with rhythmic patterns and textures and usually I go further with the deconstruction, I guess. I try to explore further with my techniques.

"For me, playing live is not just about the performance and the composition but it's about loudness and physical aspects of sound and space and experience. You can't get that at home when you listen to the record." FM

WANT TO KNOW MORE?

Gábor Lázár's *Boundary Object* is out now on Planet Mu

Make great music on your PC or Mac!

Computer Music is the magazine for musicians with a PC or Mac. It's packed with tutorials, videos, samples and exclusive software to help you make great music now!

www.computermusic.co.uk

Available digitally on these devices

Available on the App Store · GET THE MAGAZINE ON Google play · Available at amazon · nook · zinio™

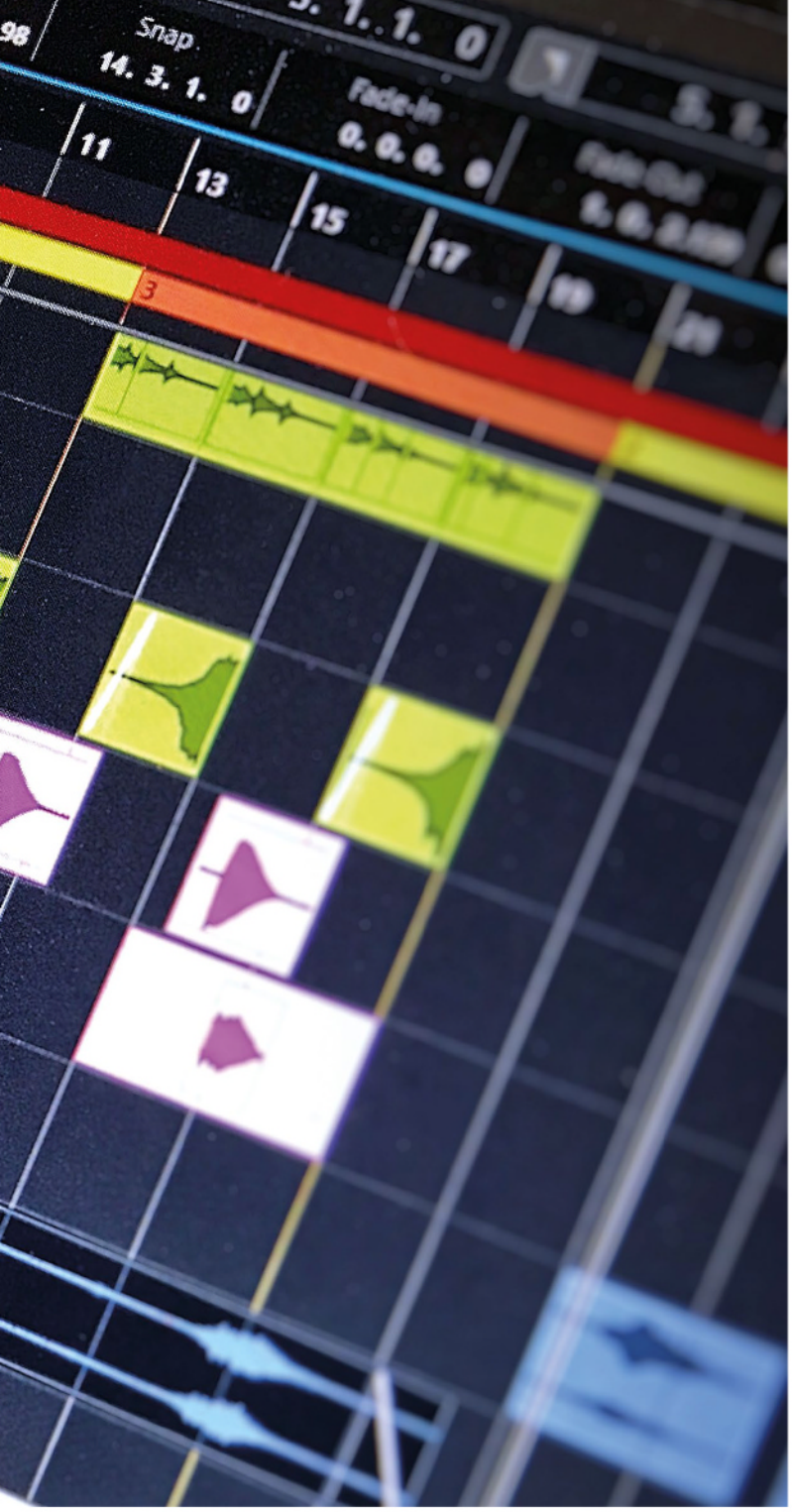
FutureMusic Platinum Award

Steinberg Cubase Pro 12

£497

Will Cubase 12 make all your DAW dreams come true? **Bruce Aisher** takes it for a spin to see what magic it can bestow

CONTACT **WHO:** Steinberg **WEB:** steinberg.net **KEY FEATURES** MIDI Remote integration, Improved AudioWarp, Scale Assistant in VariAudio, Improved editing workflow, Audio to chords, Enhanced Logical Editors, Raiser, FX Modulator, Verve, Native Apple silicon, New License Management



THE PROS & CONS

+

No dongle – free at last, and with a license that allows installation on more than one computer

MIDI Remote integration – new and powerful features for integrating controllers

Multi-channel phase-coherent Audiowarp – the description says it all

–

Some windows need updating to the new visual style

MixConsole scaling is still not perfect – with no way to save/load favourite configurations across your projects

Major DAW updates always come with a certain amount of trepidation, as it's inevitable that every user will have their own personal preferences when it comes to functionality, and therefore what makes it onto their 'top feature request' list. One has to only look at the official Steinberg forums to see this at play, and as is the case with any software, the most opinionated here don't necessarily represent a majority view. One also has to remember that software such as Cubase has an incredible number of features that cater for a very wide range of users, and the needs of someone who predominantly works with audio loops to create an EDM banger will be very different to someone who spends every day recording real instruments or who has to deal with elaborate orchestral mock-ups using virtual instruments. Despite this, it's fair to say that Steinberg acknowledge these concerns and try and balance new or updated features across the user range – though there will always be individual needs, wants and quibbles, and I include myself in that bracket.

One of the significant changes to Cubase come into this update is the removal of the requirement to use an eLicenser hardware dongle. In fact, Steinberg have introduced an entirely new system for authorising the use of the software, which now allows you to run Cubase on up to three computers, with licensing handled via the Steinberg Activation Manager. This requires you to log in to your My Steinberg account as part of the process, but no Internet connection is required for day-to-day use of the software. Be aware however that you may still have some Steinberg software that does require the dongle, such as older instruments, and these will have to wait until an update before going dongle-free.

Now let's get into the more interesting updates and additions...

AudioWarp, Cubase's interactive time-stretching tool, has always been useful, but has only been applicable across multiple tracks in certain situations. C12 improves things by allowing you to edit Warp points directly in the Project window, and for multiple tracks at once, by using the Folder Track's Group Editing mode. One important aspect of this is the addition of a Phase-Coherent AudioWarp button which allows you to avoid problems associated with warping a single performance recording captured with multiple microphones (such as a full drum kit). There will obviously still be potential audio artefacts caused by the stretching process – though with small changes these are minimal – and slicing drums the conventional way still has its place, but this is a great option to have available. Besides manual and hitpoint-based editing (and even quantisation) there are also many other creative uses of these features, and they get a big thumbs-up.

VariAudio, the pitch editing and correction engine in Cubase, had some great technical improvements in Cubase 10, and while C12 doesn't expand on these, it adds Scale Assistant integration. Scale Assistant (introduced in C11 and previously available within the MIDI-based Key Editor) allows you to make changes which fit within the select key or scale. This makes musically appropriate edits easier (including pitch quantisation) and transposing audio to create harmony parts much quicker. This ties in neatly with C12's new Audio to MIDI function that can analyse any selected audio and turn it into Chord Events on the Chord Track. The Chord Track can then be used

THE ALTERNATIVES

Apple Logic Pro X £175

If you already have the dongle (and a Mac), then Logic is an obvious alternative to Cubase. They've been battling it out for years!

apple.com

Avid Pro Tools Starts at £300 per year

An industry standard, particularly for larger studios. You'll have to commit to their subscription model, which not everyone is a fan of.

avid.com

Ableton Live 11 Suite £539

Ableton Live has traditionally lacked a few features geared toward recording-heavy projects, but what it does, it does very well.

ableton.com

to inform further edit choices. There is a lot more to the Chord Track than this, as it can also be used as a powerful composition tool, but the audio-based chord detection alone is a really great feature – try it on your favourite song for some interesting insights into how they are written.

Throwing shapes

On the sound creation side of things, one of the bigger additions is the piano-based instrument Verve. Rather than just being another 'nice' piano library, Verve combines samples of a soft felt piano with a customisable texture layer. This additional layer adds an extra element to the sustain portion of the sound and when combined with the delay and reverb effects – which include a good modulated reverb – allow you to create some excellent atmospheric tones. Any fans of Brian Eno or the minimal impressionist composer Harold Budd will love this.

On the plug side there are also two new offerings. FX Modulator is an LFO-controlled effects unit where multiple effects (such as pan, filtering, pitch-change and time-shift) can be modulated by independent customisable waveshapes to automate one or more selected parameters. Anyone aware of Cableguys ShaperBox will understand the general way in which this type of plug-in works. It's certainly a nice addition – with some decent presets to get you started – though there are third-party offerings that provide more glitchy rhythmic options.

Raiser is a new dynamic limiter that combines fast attack times with a wider range of release options and better visual feedback than the standard Cubase offering. In tests it was certainly capable of less obtrusive results than its forebear. Another worthy inclusion.

Given the scalability in other areas of the software it's a shame that these plugin windows cannot be altered in size, as they appear quite small and cramped on higher

> Fans of Brian Eno or minimal impressionist composer Harold Budd will love Verve

MIDI REMOTE INTEGRATION

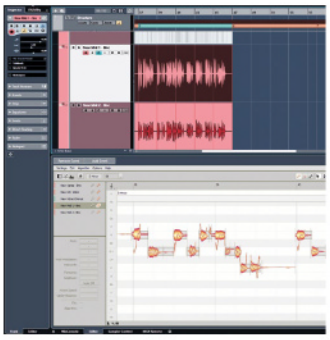
Steinberg are clearly proud of this new feature as it sits firmly at the top of the 'New In 12' page on their website. This is a complete redesign of the way in which MIDI controllers work in Cubase, with the core idea being that your device is automatically detected and the controls mapped to relevant functions. Mapping is handled by the underlying Scripts. In an ideal scenario there'd be one already created for your keyboard or control surface and nothing else required; there are some already supplied with the initial release. You can create your own using the MIDI Controller Surface Editor and connect controls to internal Cubase parameters using the Mapping Editor. However, this is only scratching the surface, as the features go way beyond simple mapping. There is in fact a whole Javascript API that can be used for two-way communication devices, and with the potential for sophisticated scripts. That said, creating your own simple one is very easy (and doesn't require any tricky program writing). All of this integrates quite neatly with Cubase Quick Controls, which can be configured for each plugin using the small QC button at the top right of each plugin window.

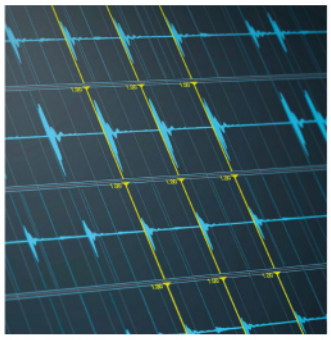
resolution monitors. On the subject of visual feedback, there are some useful new modules (including old-school VU meters) in the excellent Cubase Supervision analysis tool.

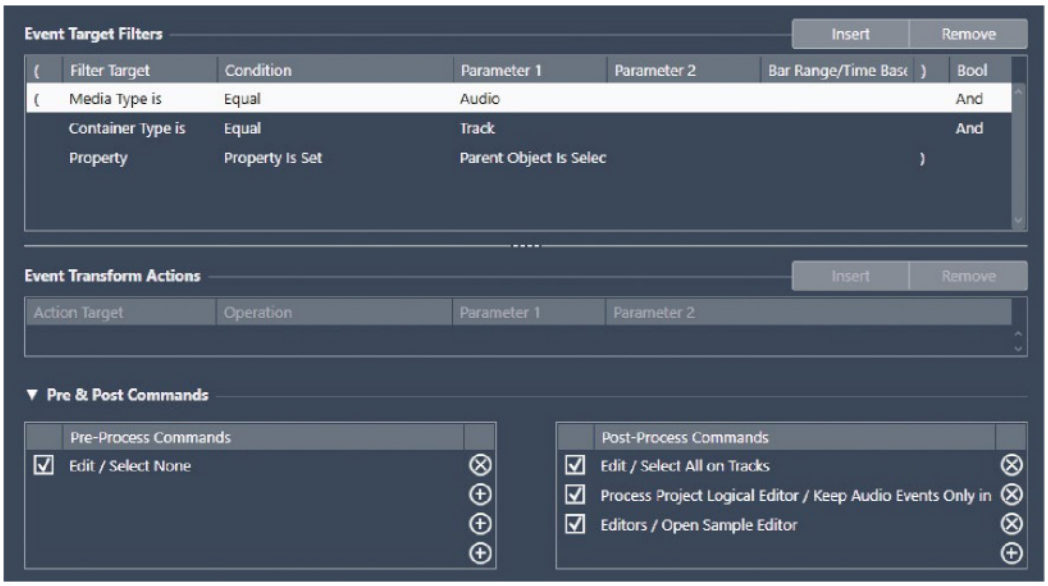
Remaining on an audio processing tip, Cubase 12 includes tweaks to its Crossfade functionality with the addition of an advanced Crossfade editor, which adds more visual feedback, a range of new operations and quicker navigation between multiple crossfades. Synchronisation between the Part and Crossfade Editor windows could be improved, and there should be an easy way to keep the Crossfade Editor on top of other windows. The original Crossfade Editor can be reinstated should you wish to keep things simpler.

Another audio editing feature gets some love in C12 with the news that ARA can be enabled for whole tracks. The ARA Extension functionality, which integrates external editors such as Melodyne into the Cubase workflow tended to slow up when dealing with lots of audio events on the same track. Extensions can now be enabled at the track level, which makes the process much more fluid (and with a noticeable speed improvement).

Audio export of channels or groups now allows you to include all side-chain input signals. However, for me the ability to export multiple selected events at once is a gamechanger as it facilitates (with some forethought) 'proper' stem bounces in way that is not yet possible using the standard export dialogue. This is also a boon for sound design work.







Multi-track Audiowarp: Now a reality. Group Editing mode now adds a Phase-Coherent AudioWarp mode meaning no anomalies with your multi-mic recording out of whack

FX Modulator: An all-new plugin that use LFO to modulate effects parameters. 14 different effects are available, ranging from volume and pan to time and pitch-shift

ARA Extensions: Now makes integration of editors like Melodyne a speedier and more fluid process

Logical Editors: These complex editors are often overlooked, but offer a wealth of powerful editing and transformation options

Robots in disguise

An area that often gets overlooked by users – perhaps because of their intimidating look – are the Logical Editors and Input Transformers. This has been updated visually and functionally, and given some new presets to get you started. These are immensely powerful processors that can be used with Key Commands and Macros to carry out tasks that might normally take a lot of button and/or mouse activity.

The list of new features and changes in Cubase 12 is very long and some appear quite small on the surface but will have a very real impact for specific groups of users. You can find the full list here – https://www.steinberg.net/cubase/release-notes/12/. Some additional ones worth mentioning are the new MIDI remote integration (see boxout), WinRT MIDI Windows Bluetooth MIDI, a second video track, a fourth MixConsole window, independent grid settings for nudge operations (great for vocal edits) and sample-accurate automation. There are, however, casualties. The Mystic, Prologue, Spector and Loopmash plugins and Rewire connectivity have been removed and Apple silicon users will lose their VST 2 plugins unless they run under Rosetta – though this applies to all DAWs on newer Macs.

Steinberg have also announced that a forthcoming maintenance update will also include Dolby Atmos support and Extended Channel Freeze (multiple tracks at once). A couple of very nice things to look forward to.

When one DAW closes, another opens…

I usually hold off on embracing big DAW updates until the first or second bug fix/maintenance release – mainly to see how other users get on, and avoid nasty surprises. However, a few visual glitches aside, Cubase 12 has been solid since the moment that I updated it, both when loading earlier projects and starting new ones. All relevant settings were transferred as expected, and there were no nasty surprises in relation to plugins or other third-party components not working as expected. I will once again voice my annoyance regarding MixConsole's scaling quirks and the inability to save mixer configurations globally. Event Volume Curves could also do with a refresh. Despite this, Cubase 12 feels like a particularly solid update that should tick at least a few boxes for most users. It also points in the right direction of travel, making Cubase quite possibly the best all-round DAW available. **FM**

FM VERDICT

9.2

This a solid and dependable update to Cubase, and offers some excellent new features and small, but important, update to others

Analogue Solutions Fusebox X £1,759

Rob Redman ponders whether the British brand's latest three-oscillator semi-modular synth trumps its predecessor

CONTACT **WHO:** Analogue Solutions **WEB:** analoguesolutions.com **KEY FEATURES** 3 VCOs can run polyphonically, SEM based filter, Sequencer, Patternator

THE PROS & CONS

+

Authentic vintage-style sounds

Lots of versatility from patching

Patternator is great for creating interest

Built-in tuner

–

Some switches feel a bit weak

The patternator and interval generator will be the biggest causes of musical joy

If you think you may have seen the Fusebox X before you'd be forgiven: it does look familiar to the previous incarnation. Look a little closer, however, and you start to spot the differences. Newly black switches; silver-ringed patch points; a sequencer in place of the old arpeggiator and a new tuner, (something I wish more synths had). The big change is behind the scenes: the switch from monophonic to paraphonic, which really gives the X a little extra, but more on tones later.

For those not accustomed to the Fusebox in either of its guises, the synth itself is a fairly large unit, although not deep. As it ships it sits upright on the desktop, with a shallow section to the rear that adds support and houses the power, audio output, plus the MIDI in, out and through ports. This will suit many and is a definite plus for those with limited desk space but if you prefer a console approach you can unscrew the front panel, twist it round and screw it back in. You'll be left a spare screw and an empty hole but that's a small price for working comfortably.

The wooden cheeks are nicely cut and, as with the rest of the synth, feels well built. The only area that feels a little weak would be the centre of the front panel. When patching here there's a little movement between patch points and the front panel but this doesn't seem to cause any issues. The rocker switches also tend toward the flimsy but they work fine and you can tell when they are engaged without any problems.

On the flip side, all the rotary controls feel excellent: good amounts of resistance, lovely tactility and all have clear markings to aid seeing positions at a glance.

A quick rundown of the front panel starts with the VCOs, the first and second offering pulse and saw outputs, with controls for pitch and pulse width. VCO 1 can be cross modded from VCO2, which replaces its octave switch with a wide tune switch, allowing for a much extended range. VCO3 also has the wide tune switch, as well as MIDI pitch switch. All VCOs can have their pitch set manually and there's a built-in tuner to aid precision, as well as a patchpoint for defining pitch with CVs. The same applies for pulse width modulation. There's also a master tune knob with its own CV input, so the VCO labelling of 'detune' makes more sense.

The mixer section is next, with five inputs, plus a sub and noise generator. Then we hit the filter section. This is one of my highlights of the Fusebox X. There is a SEM-based multimode filter, which sounds fabulous and offers a lot of versatility. Cutoff and Resonance (which is self-oscillating) knobs dominate above the LP, Notch, HP pass control, which sits alongside the

THE ALTERNATIVES

Moog Mother-32 £600

Moog's well-established semi-modular synth offers a sequencer and MIDI alongside the much sought-after Moog tones and having patch points to one side helps keep things neat.

moogmusic.com

Pittsburgh Modular Microvolt £515

The microvolt is a small semi-modular synth with lots of variety in tonal output. Its small form factor make it great for the more nomadic musician.

pittsburghmodular.com

band-pass mode switch. There are audio outs for each mode and cutoff modulation controls for CV, envelope and velocity. Dialling in a tone here is a joy, the filters sound authentically vintage yet seem somehow modern too and aid in nailing desired tones.

The envelope generators are identical, with controls for attack, decay/release and sustain and can be triggered by the patternator or MIDI and each has a pair of CV outs.

As with many analogue synths, you could play it by plugging in a MIDI controller/keyboard but the Fusebox X makes a big deal of not needing this, for really musical and expressive results. The sequencer, patternator and interval generator work together to ensure the X is like a giant toybox of musical ideas, where experimentation is rewarded with every twist of a knob.

My feeling is that, although a programmable sequencer is a great addition, it will be the patternator and interval generator that are the biggest causes of musical joy. The patternator can be used for adding all manner of interest to a sequence, or even a single note. At its heart, it's a set of four knobs that can each effect the range of whatever you define as the destination. Say a simple LFO sweeping the cutoff isn't enough: use the patternator to step through up to four values. You can skip or reset each step with a switch, sync to notes or the LFO for free-running patterns as well as patch gates and CVs. As a system for exploring ideas and tones it's fantastic and reaches new heights once the interval generator comes in to play. This section lets you transpose whatever pattern you have playing and transpose it six times, with the range defined by rotary controls, below which sit corresponding switches where you can manually engage a chosen transposition. This can be done with CV too, so it's easy to explore ideas, then allow it to run without your input, freeing up your hands.

There is a single LFO aboard but it works hard. As well as four CV outs with various shapes it has hardwired controls for cutoff and PWM, an overall rate control and even a fade-in knob, something not often seen but very welcome.

The VCA is the final part of the puzzle, which includes a headphone jack with separate volume control, as well as a switch to choose between CV-through or envelope mode.

There's much more to talk about here, like MIDI and control CVs but, other than the experimental nature of the synth, it has to be the polyphony and tones that make it special. Even as a mono synth the X sound wonderful. It's rich and deep and beautifully vintage sounding. Add in the three voice paraphony, with a click of a switch and it sings. A slight amount of detune works wonders for breadth too, adding another layer of interest and detail to the already fantastic tones. FM

BEHIND THE SCENES: The back panel houses all the MIDI, power and main audio out ports, which all remain easily accessible in both vertical or horizontal mode

HEY GOOD LOOKIN': The aesthetic remains similar to the previous Fusebox but the small changes give it a more unified and classier look. Gone are the cheap-looking red switches

EASY READERS: Labelling on synths should be clear and aid in navigation. Thankfully the Fusebox X excels in this regard, with top-notch graphics and a good typeface

POLY VS PARA

Polyphony is the amount of single notes that can be played simultaneously, whereas paraphony usually indicates the number of separate notes playing through a single filter at any given time. These are often confused and mislabelled but in this instance the Fusebox X is three-note polyphonic.

FM VERDICT

8.0

Takes an already excellent design and adds more, while improving functionality. The core remains the same so maybe not an upgrade machine but definitely one for the shortlist if looking for a new semi-modular synth

ADDAC System 308 £140

Rob Redman explores this light-based modulation module

CONTACT **WHO:** ADDAC **WEB:** addacsystem.com **KEY FEATURES** Light sensor, two channels of CV out, Offset controls

Modulation modules come in so many varieties and flavours it can be hard to keep track, let alone decide what suits your style, or fits best with your existing rig. Most modular musicians have at least a couple of modulation sources but they're very often fairly predictable and standard options. ADDAC have introduced the 308 which looks to change this, by using light as the input source for the change in CV, as opposed to LFOs and other more traditional methods.

Using light in modules isn't a new thing but it's usually used in a different way, say behind the panel in certain low-pass gates. The 308 ships with a light sensor that connects to the module using any standard patch cable, opening things up for lots of flexibility. The sensor gets patched into the tiny (at 4hp) but, typically of ADDAC, module. The 308 is 4.5cm deep so should be a good fit for most rigs. The front panel is simple but powerful, dominated by a large sensitivity knob. This has a large range but seeing as light itself comes in such a huge range of strengths, this is ideal. There is also a three-way response toggle, which determines how fast the CVs react to changes in light captured by the sensor, with settings for medium, fast and slow. At first I was confused that fast is the centre setting but after tinkering more it makes sense, as I think that will be the most commonly used setting.

The ADDAC 308 has two output channels. The first increases the control voltage when more light hits the sensor, while the second is inverted, making this more versatile than if it has been two of the same with a simple inversion switch. There are attenuators for each channel, which act on the outgoing voltage, so you can dial in precise amounts of CV without needing an extra module.

In use, the module takes a little experimentation to learn how it responds but it's a fast and fun process of discovery. With the response set to fast it's easiest to see what is happening. Point the sensor at a light source like a big window and the reaction is very snappy, although you need to consider the angle you point the sensor at, as it seems to drop off quite fast as you move from straight on. This is a good thing as it means you can be quite deliberate with it. Leaving it near your rig and sending the CV to something as simple as a filter cutoff or a phaser's depth (my favourite use for this) can lead to some interesting results as the ambient light changes.

However, what it will be used for most is in conjunction with controlled lighting. I used this with some cinema lighting that has effects like party, fireplace or patrol car. In this setup, you can have your CV respond to specified scenes. Extrapolating this idea to live venues or sets for theatre opens up some fascinating scenarios. **FM**

THE PROS & CONS

+

Excellent modulation per hp

Great build quality

Simple to master

–

Results depend on user's local lighting

FM VERDICT

9.0

It may appear limited in use but the reality is very different. This is a typically solid and well thought out ADDAC module, with huge room for experimentation and rig control that's rare to find in this market

Akai MPK mini mk3 £109

The third version of Akai's mini keyboard adds new keys, knobs and a display. **Martin Delaney** gets hands on

CONTACT **WHO:** Akai Professional **WEB:** akaipro.com **KEY FEATURES** USB bus-powered MIDI controller, with keys, pads, knobs, joystick, OLED display. Onboard arpeggiator, note repeat, scale, and chord modes. Excellent software bundle, with plug-in instruments, software editor, and presets for popular DAWs **DIMENSIONS:** 318 x 181 x 44 mm **WEIGHT:** 0.75kg

A mini MIDI keyboard is always useful – sometimes it's all we need to produce or perform music. A popular example is the Akai MPK mini, which is now up to mark 3.

The box contains a printed quick start guide, and a USB cable. The MPK mini has some substance to it, which is reassuring. Overall, everything looks and feels functional and like it's making good use of the surface area. There are 10 buttons, a joystick (excellent, we love these), eight backlit velocity sensitive pads, an OLED display, eight full rotation knobs, and of course, the two-octave keyboard. Round the back, there's only a USB port and a 1/4" sustain pedal switch. It must also be mentioned that the MPK mini mk 3 is also available in grey, red, white, and black, so you can coordinate or clash with your other gear, depending on your inclination.

The keyboard is updated with the new Gen 2 dynamic keybed – you won't get the full-size keys experience, but they're impressively playable and they can be used with the onboard arpeggiator, as well. The pads are also updated, including pressure- as well as velocity-sensitivity. The knobs rotate over 360°, making it easier to pick up the current positions in whatever software you're using. There are changes to button functionality and layout, and the case itself has had a style refresh.

There's a hefty software bundle included. If you don't already use one, the MPC Beats software makes for a good starter DAW, and the AIR Instruments plugins, including Hybrid, Mini Grand, and Velvet, function inside any DAW you may have, or indeed as standalone soft instruments. There are also other instruments and effects built into MPC Beats. Also included are a set of MPC expansion packs, and, crucially, a software editor, allowing creation of custom programs and assignment of specific MIDI functions like notes, CCs, and PCs, toggling aftertouch on/off, and more, expanding the range of possibility.

That OLED display is kind of weeny, but crisp and bright. It does a good job of conveying relevant information, starting with using the Prog Selection button and the pads to choose different presets, which include chord and scale modes, and programs available to integrate with DAWs, including FL Studio, GarageBand, Ableton Live, Logic Pro, and of course MPC Beats. This is actually a tidy little controller for a laptop music setup.

We powered the MPK with the Kenton USB MIDI Host, and got it going with hardware including the Behringer TD-3 synth – this makes the MPK mini mk3 a more attractive offering for musicians with hardware.

The MPK mini mk3 is a well-built, versatile, controller/keyboard. Whether it's worth upgrading from the previous version(s) is debatable, but it's definitely a going proposition for a newcomer, or for a professional who needs something compact to take to the studio or hotel or stage. **FM**

FM VERDICT

9.0

A nifty keyboard that can find a place in any situation, and with virtually any music gear. The software bundle makes it a compelling all-in-one solution

THE PROS & CONS

+

A do-it-all package; just add an audio interface, and you're ready to play

Decent selection of controls. Joysticks are fun: they work very well as synth controllers

Nice keys, especially for a small device

OLED display is a step up from LCD displays of the past

–

Doesn't readily work standalone with hardware, but can achieve this with a USB host device

KRK KNS Series from £90

Jon Musgrave plugs up the latest incarnation of these long established headphones from speaker giants KRK

CONTACT **WHO:** KRK Systems **WEB:** krkmusic.com **KEY FEATURES** **TYPE:** closed back **DRIVER TYPE:** Low weight neodymium **IMPEDANCE:** 36 ohms **SENSITIVITY (1MW):** 95dB SPL (KNS 6402), 97dB SPL (KNS 8402) **FREQUENCY RESPONSE:** 10Hz to 22kHz (KNS 6402), 5Hz to 23kHz (KNS 8402) **PRICING:** **KNS 6402** £90, **KNS 8402** £139

KRK are best known for their studio monitors, but for about a decade they've also produced some pretty decent closed back headphones. Those headphones (KNS 6400 and KNS 8400) offer a solid mix of price and performance and the KNS 8400 in particular often crops up on our recommendation lists. Both models have had a refresh and been replaced by the suitably named KNS 6402 and KNS 8402. Once again, the two models hit different price points and have their own sonic signature.

Design matters

Both designs are built around 40mm neodymium-based drivers with body components primarily made from impact resistant materials. They use a robust, sliding metal headband design, and the ear cups rotate (up to 90 degrees) and pivot. At 202g and 232g, respectively, they're also reasonably light, so it's no surprise that I found them pretty comfortable over long periods. What's more, when the time comes, both headband and ear pads are easily replaceable. Each pair includes a 2.5m detachable locking cable and KRK also sell various other lengths and types of cable, should you require something different. There's also a handy inline volume slider cable, which is included as standard with the KNS 8402. Both bundles are rounded off with a carry pouch and microfibre cleaning cloth.

Despite the similarities there are some fundamental differences between the two designs. First up, the KNS 8402 uses memory foam rather than cellular foam for both headband and ear pads. This not only makes it more comfortable, but also no doubt contributes to its better ambient noise isolation. The KNS 8402 also has better sensitivity and better frequency response at both extremes. Comparing them to the original versions, it's also quite clear the KNS 8402 has had a proper visual makeover, with subdued branding and a new metal plate design on the outside of the ear cups. The KNS 6402, meanwhile, looks more like the previous version.

Sounds about right

The two headphones sound in many ways quite different. The KNS 6402 has a very clear mid-range, reasonably subdued higher frequencies and not too much bass. On paper this sounds unattractive, and it's certainly not a profile you'd want for leisure use. However, in a tracking situation where you want to be able to get your pitch and timing right, I'd say this is an ideal frequency response. And coupled with the decent ambient noise isolation, you can see where they're coming from.

In contrast, the KNS 8402 has a more extended and beautifully smooth high frequency response, very usable low frequency extension, a slightly subdued lower mid range and a present but not hyped upper mid range. In essence, they sound pretty good, and are certainly better tuned for mixing, mastering or general listening. The general consensus is that the original KNS 8400 sounded great but lacked a bit of bass. I don't think the same applies to the KNS 8402 and from a mixing perspective, for me, if anything there's marginally too much bass, although this is by no means a dealbreaker.

Overall, this refresh has clearly impacted the KNS 8402 the most and this now has a slightly different sonic signature and an overall more professional look. That said, both models are still robust, repairable and very competitively priced headphones. Extremely worthy of your attention. **FM**

FM VERDICT

KNS 6402

8.5

KNS 8402

9.2

KRK's headphones continue to offer great sonics and excellent value. Each model is best suited to different tasks, but the added comfort and overall fidelity of the KNS 8402 make it my preferred choice

THE PROS & CONS

+

Closed back design ideal for recording

Memory foam padding of 8402 very comfortable

Detachable cable with various additional cable types available

Volume control cable option

Replaceable earpads and headband

–

Each model is best for different tasks

Austrian Audio CC8 stereo set £719

It takes two (condenser mics) to tango in stereo. **Jon Musgrave** checks out this new kit from Austrian Audio

CONTACT **WHO:** Austrian Audio **WEB:** austrian.audio **KEY FEATURES** **TYPE:** Cardioid **CAPSULE:** Handmade true condenser **LEVEL PAD:** 0, -10, -20dB **HP FILTER:** 0Hz, 60Hz, 120Hz 12dB/octave **FREQUENCY RANGE:** 20Hz – 20kHz **MAX SPL:** 156dB SPL **IMPEDANCE:** 275 Ohms **SENSTIVITY:** 15mV/Pa **EQIVALENT NOISE:** 16dB SPL (A) **PHANTOM POWER:** 48V (<3 mA)

If you want to record in stereo you can either use a stereo mic or a matched pair of individual mics. It's the latter configuration I have up for review in the form of the CC8 Stereo Set from Austrian Audio. The Stereo Set includes two small capsule cardioid condenser mics, two clips, two windshields and a stereo bar, all bundled together in a compact flight case. It's basically twice the price of the individual mic, but with the added bonus of the case and stereo bar. Austrian Audio calibrates all CC8s to 15mV/Pa output, with a maximum tolerance of +/- 0.5dB at 1kHz. So although you're getting a stereo pair, you could equally buy two single mics and expect the same performance.

The CC8 is handbuilt in Austria and includes their stylish grey/red colour scheme. The capsule is a true condenser (therefore not pre-polarised) design, that uses a gold coated 3-micron polyethylene naphthalate (PEN) diaphragm. Austrian Audio say this is more robust than Mylar. Combined with the weighty metal body and fine grille that protects the capsule slots, the design definitely feels ready for professional everyday use. The mic incorporates transformerless electronics, and the healthy 15mV/Pa output is matched with 16dBA self noise, which is very respectable for a small capsule condenser. It's also great to see on-body controls for attenuation (-10dB and -20dB), and 12dB/octave high-pass filter (60Hz and 120Hz).

The design definitely feels ready for professional everyday use

Austrian Audio say the CC8's capsule sound is inspired by the classic CK1 cardioid capsule found in AKG's original C-451. I was unable to directly A/B the CC8 with a C-451. However, the C-451 tends to sound quite bright, imparting a particularly splashy sound to hi-hats, for example. To my ears, the CC8 offers a much flatter delivery. Indeed if you look at the frequency plots, the C-451 has a broad high frequency lift up to 4dB. The CC8 meanwhile has two modest lifts at 6kHz and about 16kHz. Comparisons aside, on acoustic guitar, for example, the CC8 delivers a lovely sound, full in the low mids and with plenty of articulation, but not overly bright. This theme follows through into percussion and drum kit overheads, both of which sound very natural and not unpleasantly harsh. Testing an individual mic, the cardioid polar pattern is reasonably broad, and the transition to off-axis quite smooth. And with that healthy output level, you don't need too much gain.

Unsurprisingly for pencil-style cardioids, the CC8s are sensitive to wind noise and plosives. The included foam windshields do help a bit but if you want true outdoor protection you'll need something more fluffy. I can't emphasise how useful a stereo bar is, particularly for cardioid techniques such as ORTF and XY. The included CC8 bar is solid and works well, although it lacks space and angle markings, and riser fittings, all of which can be useful. Aside from these aspects I have no other gripes.

In terms of price, the CC8 sits well above the budget category without being silly money. What you get for that is a pair of very refined mics with a spec to match, and I'd be more than happy using these in a professional setting. **FM**

FM VERDICT

8.7

Another great Austrian Audio package that gives you a marked uplift on budget options, but still without the need to sell a kidney

THE PROS & CONS

+

Has a smooth, natural, un-hyped frequency response

Solid construction using robust components

Decent output level

Low self noise

Stereo package comes in a handy flight case

–

Windshields could be better

Maestro Original Collection pedals from £139

Gibson resurrect their legendary effects pedal brand with a five-unit collection. **Robbie Stamp** puts them firmly underfoot

CONTACT **WHO:** Maestro/Gibson **WEB:** maestroelectronics.com **KEY FEATURES** **IMPEDANCE I/O:** 32k /5k **(Fuzz Tone FZ-M)**, 1M /1k **(Ranger)**, 100k /100 **(Invader)**, 470k /1k **(Comet)**, 470k /1k **(Discoverer)** **BYPASS:** True Bypass **CURRENT DRAW:** 21mA **(FZ-M)**, 30.4mA **(Ranger)**, 56.7mA **(Invader)**, 55.4mA **(Comet)**, 61.3mA **(Discoverer)**, **POWER:** 9VDC centre negative and 9V battery operation **DIMENSIONS:** 128 x 88 x 64mm **WEIGHT:** 556g to 576g (model dependent) **PRICING:** **Ranger, FZ-M, Invader, Comet** – £139, **Discoverer** – £149

THE PROS & CONS

+

Ranger Overdrive definitely has 'range' from subtle warming up to a hefty crunch

FZ-M brings the slashing Fuzz Tone sound with fuller tones ready to dial in

Invader has a raw mid distortion character that is uniquely amp-like

–

Comet Chorus is a little limited in range

Discoverer Delay repeats break up/down too soon, becoming a chirrup if you're at high feedback settings

The Maestro name is synonymous with some true classics, like the FZ-1 Fuzz Tone and PS-1 Phase Shifter, as well as a whole roster of oddities like the USS-1 Universal Synthesizer System. Gibson have kept things on the sober side of history with this new outing of the Maestro label: overdrive, fuzz, distortion, chorus and delay. While the pedal world has increasingly courted the wallets of non-guitarists, especially modular synthesists, the new Maestro line is pointedly guitar-centric, considering 60% of the pedals are variations on distortion. That said, if a pedal works well on guitar, it'll likely bring some joy to synths, and even more so if it can handle bass well.

The sturdy, slant-topped enclosures carry a unified design with a colour palette that makes them an attractive prospect when lined up, as well as standing out on a pedalboard. This is further aided by the Maestro bugles emblem which carries a trio of coloured LEDs. The screw-hinged bottom plate allows access to the battery clip, as well as trimpots for mode adjustments in the Invader, Comet and Discoverer. All five can be run from a standard 9VDC supply and draw very little current in operation.

Ranger Overdrive

The gentler end of distortion is dealt with by the Ranger Overdrive which features two gain modes (HI and LO) via the toggle switch. The three dials take care of gain, tone and output level, with the latter capable of driving an appreciably hot signal into a valve amp's front end for extra crunch, or to pummel another pedal's input stage to (sonic) destruction. The immediate impression the Ranger makes is in the midrange, particularly the lower end. This pedal is an effective thickener for guitars, basses and synths, adding/enhancing harmonics without overly compressing dynamic range, though there is some inevitable and rather flattering peak clipping happening.

In LO mode, the Ranger can keep clean-ish at the CCW end of the Gain dial, especially when riding the volume pot on a guitar, while providing thickening and plenty of level boost. It sums in a little of the dry signal in this mode, and this allows the source's dynamics to remain mostly intact as the Gain is wound up. Unless the input is extremely treble-heavy, there's no need to pull the Tone control below 12:00, but there's plenty of reason to push up from there (it's a low-pass filter), backing off as the Gain knob goes up. Even fully CW, there's still an audible roll-off that will trim back the high top of whatever passes through, which is common with a great many overdrives. LO is definitely the mode for gritty funk, whether that's synth, keys, guitar or bass. On electric pianos it produces a tube amp-style breakup that can be fine tuned and played with dynamics to great effect, though at the heavy end, single-note lines and solos really feel the benefit.

HI is the non-subtle mode and its pronounced mid-focus means the Tone dial will stay regularly near the top, source depending. The distortion really growls without getting nasty, which is tasty on guitars and bass, and brings real grit and girth to synths, from basses to leads. The Ranger handles bass well, as do all the pedals, and this helps extend the usefulness of this unit. HI mode is 100% overdrive signal so it will readily munch into dynamic range, enhancing sustain and taming harsh transients while adding attitude. The harmonic distortion, probably due to the low-pass filter, fills out the mids without spitting out fizzy highs or overwhelming the low end, even when cranked right up.

THE ALTERNATIVES

Boss FZ-1W (for FZ-M) £175
The '90s FZ-2 and FZ-3 models have garnered such a reputation, as well as some straight up copies, that they got the Waza Craft treatment, resulting in a well priced, high quality standard for fuzz lovers.
boss.info

Dreadbox Komorebi (for Comet) €160
Chorus and flange get a workout with this modular-friendly package. There's a huge range of modulation available for guitarists and producers with CV functionality to boot.
dreadbox-fx.com

EHX Memory Boy (for Discoverer) £109
Much of the magic of the Memory Man is captured in this scaled-down version with its great standard of BBD delay alongside some hefty modulation lovers of the wobble.
ehx.com

Fuzz Tone FZ-M

The only throwback to Maestros past, the Fuzz Tone FZ-M pairs a take on the famous FZ-1A (Classic mode) with a more versatile version in the Modern mode. The original Fuzz Tone was an aural slasher, and this is what the Classic mode offers players, though with the Attack (fuzz/clipping amount) turned down, a less ear-splitting fuzz can be corralled, albeit heavily dependent on the source and the Tone control position. In this mode the FZ-M uses a low-pass filter, and whereas the Ranger still rolls off the highs when the filter is fully 'open', this one screams at you until right near the end of the CCW line. For guitarists, this unbridled harmonic distortion can be tempered with prodigious use of the instrument's tone control, and the same goes for synthesists who could pull down any prior low-pass filtering to garner a smoother result.

The Modern mode uses a combined high-pass and low-pass filter depending on which side of 12:00 the Tone knob is sitting, and this, in conjunction with a different fuzz behaviour, produces a distortion that's more familiar to modern ears. Though the Classic mode is good fuzz to cut through a mix and is eminently playable, the Modern mode is where the FZ-M performs best. As with many fuzzes, it best suits single notes, octaves, and simple diads (root + major 4th or 5th) and will add a distinctive and pleasing old school buzz to instruments. The more low end pushed into the FZ-M, the better it sounds, and simple waveforms (especially sine) can be transformed into something far more exciting before passing into filters, modulations and delays.

Invader Distortion

In many ways this is the least subtle member of the Maestro Original Collection, serving up a heavy sound that is 'invasive' from right across the range of the Gain dial. Like the Range, there is a lot of output level available for crushing whatever sits trembling at the other end of the cable, but there the resemblance ends. Though there is a meaty middle to the Invader sound, it possesses a heavy bottom end that loves to chug. The behaviour is amp-like, growling on the low side of the Gain dial and emitting a deafening roar at the other. There is a grainy roughness that suits hard, punky rhythm guitar playing, and it will rock out the bass thanks to a weighty bottom end. It's less appealing for the synthesist, though for bass-heavy sounds it will provide an overblown low buzz that may prove useful. Though the Tone knob lacks a little range, the Invader doesn't have a fizzy top end that needs reining in.

The toggle switch brings a gate into play, the threshold for which can be adjusted via an internal trimpot. It's a simple gate that's adequate and will aid chopping playing without spluttering but it's no match for a dedicated pedal.

> Consistent quality, but the coherence of the control set has hemmed them in

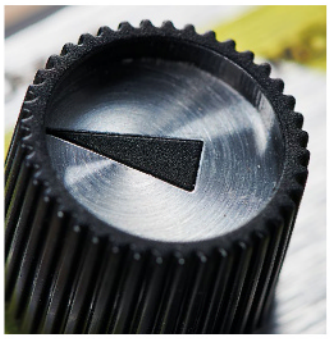
Comet Chorus

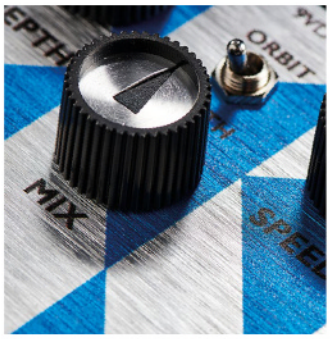
Modern Maestro's only modulator brings two modes of chorus: Earth and Orbit. Earth is the straight-up chorus and Orbit leans more into the rotary/vibrato sound. An internal trimpot controls how much Orbit deviates from Earth. The effect is more akin to tremolo, though that's not necessarily a bad thing. The main chorus sound is quite a thick,

COMET CHORUS: Earth mode for the main event chorus, and Orbit mode for a vibrato/tremolo effect with its own mix trimpot inside

DISCOVERER DELAY: Analogue BBD delay with a modulation mode that can be adjusted for depth and rate via two internal trimpots

FUZZ-TONE FZ-M: The original Fuzz Tone's highly strung aggression with a fatter modern interpretation that suits 21st Century pedal use





mid-focussed affair which forgoes some of the wispy qualities some choruses display.

It can be a little too subtle on lower Depth and Mix settings, and the Rate knob sits well within the sensible range, which may put off those looking for more 'weirdness' for their modular setups. For guitars, keys and synths the Comet does add a juicy modulation that won't get in the way, and the Orbit semi-trem sound brings extra movement to the source. What it does, it does well, but it feels like it should do a bit more, be just a little bit wilder.

Discoverer Delay

Instantly the Discoverer serves up an identifiably analogue BBD delay sound. At the short end, the delay makes a complementary pseudo-reverb, with modulation Mode bringing an extra dimension that soon shifts into chorus territory as the Delay knob moves up. Two internal trimpots are available to set the modulation depth and rate, the range of which allows everything from a slight swirl to a rapid jelly wobble. The delay time range is well set so the longest doesn't produce too much BBD noise. The repeats have a well balanced tone so they won't get in the way even with a high mix ratio, but they don't lack detail in the first instance either. The onset of break-up is a little quick, which will appeal to those looking for a dirty or distorted feedback, but the drawback is that as the Feedback knob passes the midway point, the sooner the decays distort themselves into something resembling a chirrup. At extreme settings this almost transient decay sound is fun to spin around in time with the Delay knob, but it lacks the richness of a more subtle feedback breakup that steadily degrades the signal.

Away from the extremes, Discoverer provides a musical analogue delay with a distinctly vintage vibe for creating space and rhythmic interplay that will suit synthesists and reampers as much as guitarists and keyboard players.

Original Collection

The highlights of the collection are in the distortion arena, ie the Ranger Overdrive and Fuzz Tone FZ-M. The vintage funk and grit is a consistent quality throughout, but maybe the coherence of the control set has hemmed them into being too sensible or limited with regard to Comet Chorus and Discoverer Delay. Maestro is known for many idiosyncratic yet beautiful creations, such as the Bass Brassmaster (absurd origin story, unique/bonkers design, glorious sound), but idiosyncrasy may not be profitable.

Though these are not expensive pedals, they face stiff competition from both the big names and some of the simpler/cheaper offerings from the small producers; just under £150 is a sort of no man's land between mass production and boutique. Fans of overdrive and fuzz are advised to set foot there. FM

INVADER DISTORTION: A rhythm friendly amp style distortion with a simple onboard gate and internal trimpot to set the threshold

RANGER OVER-DRIVE: The LO mode keeps the mid-centric overdrive on the dynamic side; HI emphasises a more squeezed crunch

FM VERDICT

7.4

The Maestro rides again with a mixed bag of effects that bring about a vintage look and sound, dripping in harmonic distortion

Arturia Efx Fragments €99

The French brand go granular for their latest effect. **Si Truss** breaks it down

CONTACT **WHO:** Arturia **WEB:** arturia.com **KEY FEATURES** Granular effect plugin featuring three granular modes – Classic, Texture and Rhythmic – plus three-slot multi-effect section. **FORMATS:** VST, AAX, M1

THE PROS & CONS

+

Offers quick access to some radically creative effects

Can do rhythmic, ambient and lots more in between

Some powerful modulation tools

–

Not the first accessible granular effect we've tried

Arturia only entered the plugin effects game a few years ago but they've gone all-in since then. Efx Fragments is the 23rd plugin in the French brand's FX Collection bundle. Much like their V Collection synths, Arturia's effects lean towards vintage emulations, offering recreations of classic choruses, tape delays, compressors and the like. There have been modern originals sprinkled among the classics though, and Fragments is one.

This is a granular effects processor, meaning it works by capturing incoming audio in a buffer then playing back and processing tiny sections of that audio, known as 'grains'. It's an inherently deep process, but Arturia's take is pleasingly user-friendly – in line with the granular engine already found in the company's Pigments synth.

As with other Arturia plugins, Fragments' interface can be viewed in both Standard and Advanced modes. In Standard mode, the plugin displays the audio buffer along the top, flanked by macros and master output controls. Below are sections for controlling the Grain Capture and Grain Release. The first of these controls how the virtual playhead scans through the audio buffer, adjusting the speed at which it moves and the 'spray' – which randomises the position grains are collected from around the playhead position.

Grain Release then controls how the audio plays back: via Classic, Texture and Rhythmic modes. Classic is a standard take on granular synthesis, with controls for size, density and pitch of grains. Texture, meanwhile, specialises in 'stacked' grains, where the audio is layered to create ambient-friendly 'grain clouds'. Rhythmic lets the user control grain playback with a mini step sequencer, for groovy, glitch-like results.

Beyond this is a three-part effects section. The first module here controls the pan distribution of grains, while the latter two are multi-effect slots offering reverbs, delays, distortion, mod effects and more. Advanced mode opens additional interface sections, giving additional depth of control over the Grain Capture and Release sections and an extensive modulation section. These modulation tools look and function much like the well-designed routing setup in Pigments. This is where users can set up macro controls, as well as route modulation from a trio of function generators, an envelope follower and another sequencer.

Fragments strikes a fine balance between depth and accessibility. There's a lot of sound-shaping on offer, from glitchy, groove-bringing sequenced effects to uncanny glossy reverbs and wide, churning modulation. The top level controls and a decent crop of presets make all these accessible even if you'd rather not delve into the placement of grains or the details of modulation routings.

Fragments isn't the only plugin to put a user-friendly spin on these sorts of effects – Output Portal is arguably still more powerful, albeit pricier. Much like Portal, it has the potential to become a quick-use sound design secret weapon. **FM**

FM VERDICT

9.0

A powerful, user-friendly sound design tool. It's not the only game in town, but likely to become a secret weapon for many users

Excite Audio Lifeline Expanse £49

This debut plugin crosses the divide between amp sim and multi-effect. **Si Truss** steps into the Expanse

CONTACT **WHO:** Excite Audio **WEB:** excite-audio.com **KEY FEATURES** Multi-effect tool with Re-Amp, Space, Width, Format and Dirt modules. Lite version also available for £33, including all modules but no Advanced controls

Excite Audio are a relatively new development outfit spun off from UK production specialists Plugin Boutique. The company launched late last year with the arrival of their debut plugin, a multi-effect tool named Lifeline Expanse.

Lifeline Expanse muscles its way into the increasingly crowded multi-effect realm claiming an ability to 'breathe life into audio'. In practice this amounts to a processor consisting of five re-orderable effect modules each with their own individual modes and parameters. What sets Lifeline Expanse apart from competitors is that one of these modules is focused on re-amping, meaning it feels like a hybrid creative effect and amp sim.

That re-amping module is well-equipped and sounds thoroughly convincing. There are four modes on offer, each emulating a different form of playback device: Cabinet, for guitar-style amp simulation, Monitors, replicating a studio speaker setup, Device, for speaker playback from a radio or phone, and Vintage, which captures the lo-fi sound of vinyl or tape playback. As with each of the five modules, users can adjust sounds in either Main or Advanced modes. Here, Main offers a simple three-control setup, for editing Age, Tone and dry/wet Mix. Switching to Advanced mode gives considerably more control of depth though, letting users edit speaker size and distance, as well as setting the balance between room and close mics and adding a touch of drive to the re-amped signal. Excellent for adding space and character to dry sounds.

The remaining modules are straightforward, nicely configurable and all five have an element of multi-band application. Space is a reverb, with Plate, Spring, Room and Slap modes, and decent control over effect size and tone. Width, as the name suggests, deals with stereo image. This can widen sounds using Haas mode, narrow them via Mono setting, adjust the Mid/Side relationship, or apply simple chorussing via Detune mode. The remaining two modules both offer different distortion. Dirt is an analogue-style drive effect with Tube, Tape, Rectify and Fuzz modes. Format, meanwhile, is a digital degradation tool offering bit-crushing Degrade mode, Resample, Flatten and an MP3-style Washed mode.

Beyond this, a small master section offers hi- or low-pass filters for the wet signal. There are also controls for input and output levels and global dry/wet. The master section also has an on/off limiter to protect speakers from overblown levels – a handy feature given the variety of drive and boosting tools – plus a Smoothing effect to reign in harsh frequencies.

Put together, Lifeline Expanse can do a lot to make audio sound better with little work. This isn't the be-all of multi-effect plugins. There's little by way of modulation, so Lifeline is best at applying a general static 'sheen' to sounds or gelling buses. For movement or, say, precise EQ edits, look elsewhere.

What Lifeline Expanse does, it does very well though. An impressive first effort from Excite Audio. **FM**

FM VERDICT

8.8

The combo of re-amping and characterful distortion make this an excellent tool for bus processing or adding a touch of hi- or lo-fi sheen

THE PROS & CONS

+

Comprehensive and convincing re-amping options

Great for adding character and space to dry sounds

Well-stocked library of useful preset

–

No built-in modulation tools

United Plugins Mirror

Reverse reverb is one of those classic studio effects that can sound great, done properly. Take a track, add reverb, bounce it to audio, then reverse that audio in your DAW, and drag to place the reversed reverb signal before the original sound that it stemmed from. We're pleased to announce, though, that United Plugins' new plugin, Mirror, helps remove all those pesky workflow steps from the bargain, instead letting you instantly whip up the celebrated effect.

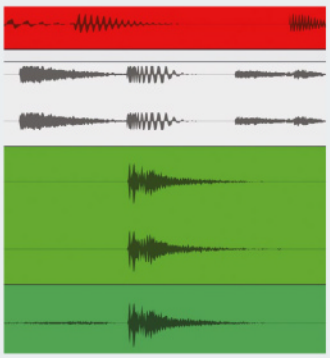
Even better, thanks to a couple of parameters in the plugin, you can make a few big tweaks to the character of the reverse reverb and how it sits against the original sound – without having to do any of the micro-operations yourself.

Flip reverse it >

Add Mirror onto a track, give it a couple of seconds and you'll have conjured a reverse reverb effect, without the fuss of actually doing it in your DAW. In the right image, you can see the original audio (a snare) and a bounced (or 'mirrored') version of it. You can see that the snare's signal is played backwards before the main sound hits. What you can't appreciate as an image is the little drop just before the transient of the actual snare hits – a great touch, as anyone who's ever set up a reverse reverb will attest.

Increasing reverb >

Set the Reverb parameter to 100% to crank the effect a bit. This adds extra reverb to the signal before it gets reversed and replayed. Theoretically this makes the signal longer and denser, though, as you can see from the waveforms of the original, and newly copied heavy-reverb signal, the effect and its original hit still sit in the same balance. Of course, every setting between 0 and 100% gives a different contribution to the sound you'll eventually get – bigger isn't always better.



Blurring the 'verb >

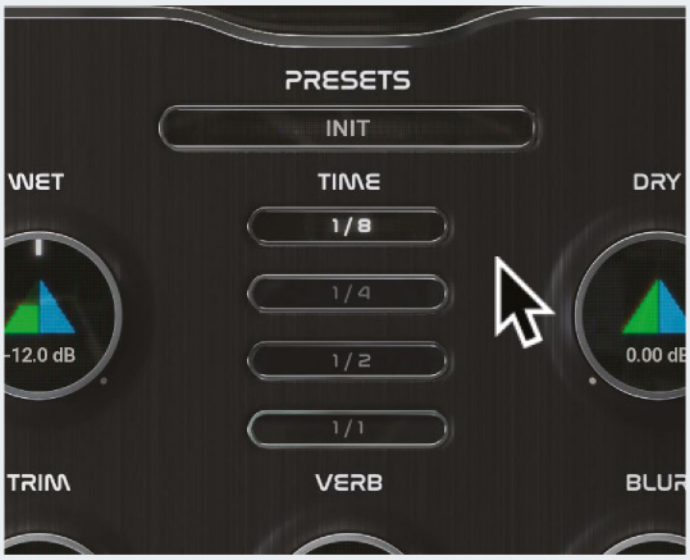
Next we have the Blur control, which acts as a dry/wet mix on the reverb signal before the reversing process happens. The result of more intense Blur settings are that the entire 'tail' reversed in the run-up to the sound is washier and more diffuse. This control, however, may not affect everything as evenly and diffusely – sometimes the sound is very comb-filtered and a little hard to swallow, so this one depends very much on the material you're running through it.

< Trim the transients

We'll turn our attention to the Trim control now. This moves the reverb shadow a bit with respect to its transient. Depending on the exact nature of the sound you're reversing, you may not want the reversed material to go right to the end (or start) of its sound. For a snare drum source like ours, increasing the Trim control lets us get rid of the transient in the reversed signal, leaving out a doubled-transient and keeping the power of our actual snare's hit. You may not want to use this for every source though.

LATENCY ISSUES?

Mirror adds up to a bar's worth of latency to your project – that's the only way it can possibly work within its plugin format. Depending on your tempo, this can be quite a huge amount of latency, and not every DAW can keep up with that. Logic and Bitwig users, as well as those who use Pro Tools, may find that their DAW's latency caps are causing the plugin to go out of time. To solve any issues you may encounter, understand that there may be a maximum amount of latency you can reasonably apply, and take steps to create the effect using a smaller timebase value in the plugin.

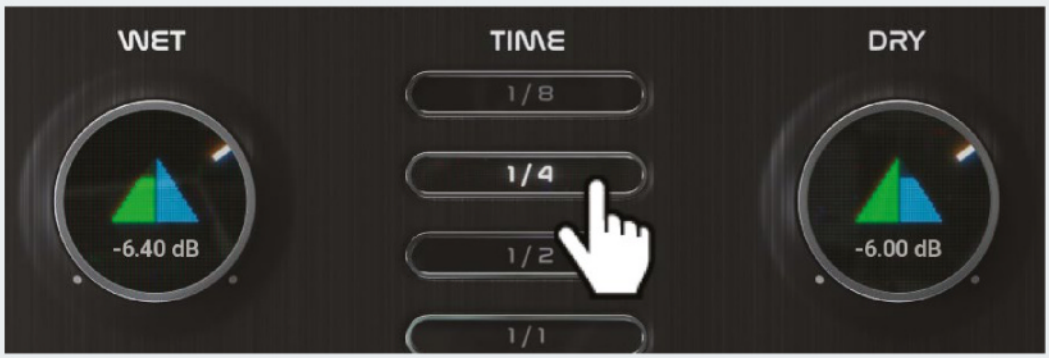


All about timing

Let's get down to the business end of the effect. At the top we have its Timebase controls, which chooses the length of time that the plugin will inspect and reverse – from 1/8 of a bar to a whole bar. For our repeated snare source, any option above 1/4 creates the desired result, but more complex sources may need judicious time selection. The more time, the more latency the plugin adds. Some DAWs may not respond properly to long latencies, but other DAWs should allow larger lengths.

Dry/wet mix

Also at the top of the plugin, the Dry and Wet controls let you balance the original and reversed sounds. Turn the Dry straight down to listen to the reversed sound in isolation, or to get the reversed sound on its own for further processing on a duplicated channel. From here, adding effects or even having a duplicated channel for a new, longer reverb is an option. Otherwise, use the Dry and Wet controls to tailor and balance the two signals, to get things hitting just right.



Filters and presets

Finally, at the lower end of the plugin UI is a pair of filters for customising the sound of the wet signal. The high-pass is activated to 200Hz by default, so be careful to negate this if you're using drum sources – especially kick drums. The high- and low-pass filters can be used to great effect for taking the edge off the reversed reverb, making it fit into the music rather than become too weighted a feature of its own. Lastly, in the top half of the plugin, try out the presets window to get a good sense of a few of the plugin's key uses. FM

Behringer Pro-1 €278

How does Behringer's take on the iconic Sequential Circuits monosynth fare a few years after release? **Leo Maymind** dives in...

CONTACT **WHO:** Behringer **WEB:** behringer.com **KEY FEATURES** Analogue synth with Dual VCOs, Pure analogue signal path based on authentic VCO, VCF and VCA designs, Classic 4-pole filter design with self-resonance capability, 64-note dual sequencer, 16-voice Poly Chain allows combining multiple synthesisers for up to 16 voice polyphony

Following the release of their own take on the Model D, Behringer's Pro-1 is an all-analogue tabletop synth that takes inspiration from a certain classic by Sequential Circuits, the Pro-One.

Originally released in 1980, the Pro-One was said to be inspired by a single voice from the iconic Prophet-5 synth, but it had a few tricks of its own. Behringer didn't mess with the successful formula too much, as their Pro-1 is an all-analogue monosynth that features two oscillators, a beefy filter with its own ASDR envelope, a subtly complex modulation matrix, and a simple sequencer/arpeggiator. Looking at the architecture of Behringer's Pro-1, you'll see that not much has changed from the synth that inspired it. There are two oscillators, the first of which offers sawtooth and square waves, with a variable pulse width of the square wave. There's a four-octave range for each oscillator, as well as a fine-tune knob for those slightly detuned sounds. The second oscillator also has sawtooth and square waves, but adds a triangle wave into the mix as well, which adds a nice warm, subby flavour to the Pro-1's sound.

Pro tool?

Each waveform can be turned on individually for each oscillator, so there's quite a bit of timbral complexity available before the signal even gets to the filter. Each oscillator has its own level knob in the mixer section, and there's also a separate white noise generator. When an audio signal is plugged into the external audio jack on the front panel, that knob becomes a volume for that source. Oscillator 1 can be synced to Oscillator 2 for those classic tearing/ripping sounds that you'd associate with many classic '80s synth riffs.

MAKING SENSE OF THE MODULATION MATRIX

The Pro-1's modulation matrix is where much of the heavy lifting gets done. Sources range from the Filter envelope, the LFO, and Osc B; each can be routed to five destinations (both oscillators' pulse widths and frequencies, as well as the cutoff of the filter). Impressively, you can route the sources to each destination either directly or via the Mod wheel, giving a lot of room to modulate your sound. The Pro-1 can also be used with external LFOs and envelopes in your Eurorack case for a very flexible synth voice.

The Pro-1's 4-pole low-pass filter is the main attraction here for many, as it sounds great when both open and almost completely closed, giving it a lot of flexibility. Given that the filter has its own ASDR envelope, it's possible to create sounds that similar synths like the Roland SH-101 just can't reproduce. The Pro-1's filter can also self-resonate and act as a sine wave oscillator, allowing it to be a third oscillator.

One area where Behringer have improved over the original is the new duophonic ability of the Pro-1. Each oscillator can be triggered to play a separate pitch by flipping up the somewhat strangely labeled "Poly" switch on the front panel, though both oscillators share the same envelope and filter settings. Setting the Glide to Automatic, as opposed to Normal mode, allows for legato sounds when several notes are held down at once.

Original is best?

Further improvements over the original include the fact that the Pro-1 can now be used with MIDI, as it has both full-size DIN jacks and a USB MIDI connection which effectively functions as MIDI interface. As mentioned, the Pro-1 also features Eurorack-compatible patch points on the top of the front panel. It's also possible to remove it from the case and use it in your Eurorack case, with power coming from your power source.

Just like the original, the Pro-1 gives users the ability to store two sequences, each of which can be up to 40 notes. These are retained in memory even after shut-off. Programming in notes is a bit archaic but it works fine. The arpeggiator is identical as well, with just two choices (up and up/down) and no ability to change octave range.

And just like our Model D, our Pro-1 came to us out of the box with some tuning issues. Oscillator 2 didn't track properly across, even an octave, and the oscillators were set to two totally different pitches with both pitch knobs set to noon. Opening up the unit and tweaking two internal calibration knobs fixed both of these problems, but it did take a bit of fine-tuning to get right. FM

> Behringer haven't messed with the successful formula too much

FM VERDICT

VALUE

BUILD

LONGEVITY

USEFULNESS

OVERALL

8.7

If youre looking for a rip-roaring monosynth, it's hard to not wholeheartedly recommend the Pro-1

THE PROS & CONS

+

Behringer's superlative Pro-1, can go from vintage to gnarly in seconds

Eurorack patch points and mountable design will make a lot of users happy

Sequencer and arpeggiator, although minimal, are still nice additions

Small tabletop format means it can slide into almost any studio setting

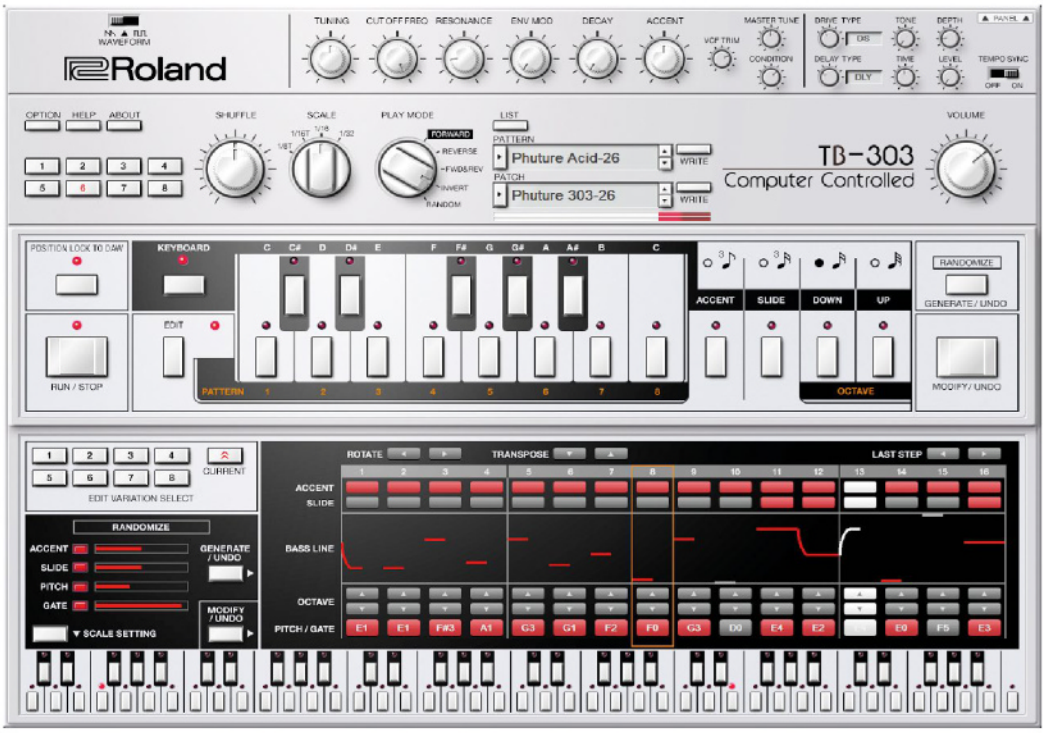
–

Early units were very in need of tuning calibration when sent from the factory

No saving of presets at all

Roland – DJ Pierre's Phuture Collection

$19.99 each (or free with Roland Cloud subscription)



DJ Pierre will need little introduction to most. As part of the group Phuture, he introduced the world to acid house, and its sound palette dominated by the incessant driven squelch of the TB-303 Bass Line. Decades have elapsed since Acid Trax hit the streets of Chicago, but its influence can still be heard in house, techno and related micro-genres even in today's offerings.

It's also interesting to note that while the TR-909 so often gets labelled as *the* House music drum machine, the all-digital TR-707 (and its Latin percussion cousin) were also widely employed.

Given that Roland have distilled the essence of all these units into DSP and hosted in both hardware and plugin form, it's no surprise to find that DJ Pierre has created a set of partner patterns and patches for the virtual TB-303, TR-707 and TR-727. These are – as Roland say – created for "maximum acid", and there is some great content here to fuel your acidic dream.

$19.99 for Lifetime Key licences in each instance might limit their initial appeal, but for Roland Cloud Pro and Ultimate members, these are included in the sub and are a nice addition to the expanding Roland software universe. ***Bruce Aisher***

roland.com

VERDICT 7.5

Spitfire Audio – Originals: Abe Laboriel Jr Drums £29

One might therefore be forgiven for thinking that all Spitfire products carry a premium price tag. However, for many years they've released completely free products in the form of their Labs instruments. Originally hosted in Kontakt, these now form part of an ever-expanding range employing their own plugin. More recently, Spitfire have straddled the two ends of the pricing scale with their Originals series. Although subtitled 'essential cinematic ingredients', the latest fits comfortably across the genre range. It comes courtesy of Abe Laboriel Jr., who has recorded kit and pattern-based content in LA's Henson Studios for this 2.5G instalment. Overall, it's a clean, nicely-crafted set that can be tweaked with controls for kit and mic balance and additional analogue 'heft. The patterns are audio (rather than MIDI) based, and will adapt to DAW tempo albeit with pitch shift to accommodate the change of speed. Solid and dependable. ***Bruce Aisher***

spitfireaudio.com

VERDICT 7.8

Roland – JD-800 Darkwave for Zenology Free with Roland Cloud Pro and Ultimate

Roland's ZEN-Core technology is the sound engine that powers both their Jupiter-X synth and Zenology plugin, and both have a secret up their sleeve – they can host Model Expansions which expand their sound palette with emulations of classic Roland gear. Rather than using look-alike visuals for their hardware emulation, the ZEN expansions offer consistent and sober interfaces, though the sonics are appropriately retro. This means the Roland Cloud users have an expanding array choices for accessing patch content. Here, Inhalt bring some '90s hybrid synth moodiness to the platform with their Darkwave path collection. The JD-800 was a great synth and it's good to hear some of its tones geared to a new audience. ***Bruce Aisher***

roland.com

VERDICT 7.1

Dabromusic – Phat Bass Music £29.95

Monster bottom-end bizz that'll melt cones, break hearts, and curdle milk at ten paces. The downright dirty decibels in this mammoth 3.8GB pack are ripe and ready to take your glitched out future-hop wobblers and nasty neuro-steppers to the next dimension.

There are future bass loops everywhere you look, as well as electronic noisescapes, full and stripped-back drum lines, EDM synths, and some very tricked out construction kits to go goo-goo over. If you f**k with 150-160bpm or 170-190bpm, then you'll be left gagging and gooped.

And, in the spirit of giving, they bless you right up with a raft of bonkers Ableton racks for generating mad sounds and saturating harmonics with the merest flick of a dial. Phat AF!

Roy Spencer

loopmasters.com

VERDICT 9.0

Air – Splice Originals

From $7.99/month

Channel the elements with this blustery pack of wind-inspired samples. Each one-shot has been made from a vast range of puffy gasps, compressed air bursts, and noises coaxed from all your favourite flute-family-style instruments. Plus, you get noisy drum and percussion sounds built out of household bits, like overfilled party balloons and "once you pop" sealed air wrapping sheets. All the breezes, breaths, and gentle blows have been caught on top-end mics, so the quality is sky high. And it all comes bundled with Astra and Beatmaker presets, plus MIDI and audio loops. *Roy Spencer*

splice.com

VERDICT 7.0

Loopmasters – Deeper Drum & Bass £29.95

More scintillating samples from the DJ Trax lab. And, once again, this UK junglist's signature sound is represented nicely across this edgy new collection. The near 800MB set is pumped full of his typical track ammo, fit for lacing through your uptempo rave and drum and bass rollers. Perfectly recorded drums, chopped up breaks and the moody atmosphere pads and cinematic synths form a dense cloud over the top. Twinkling keys and toppy riff loops are a blast to work with, and the inspired horn blasts will sound out a dancefloor clarion call in seconds. Enjoy the ride. *Roy Spencer*

loopmasters.com

VERDICT 8.0

Audiotent – Prime

Standard: £37
Deluxe: £47

Immerse yourself in a dark, hypnotic world of glorious synths and pounding drum machine beats, in this planet-rocking library of tough industrial techno sounds. Each chunk of coveted outboard gear in this crew's collection has been twisted until it spits out nothing but the nastiest noises. Monster drum machine hits, core-shaking analogue subs, rhythmical top textures, and powerful pad sounds come thick and fast. It's invigorating stuff, with all of the 500+ loops clocking in at 134 and 138bpm. A storming selection of raw techno racket to take your projects into prime time. *Roy Spencer*

audiotent.com

VERDICT 8.0

Sample Magic – Sleazy Hip-Hop

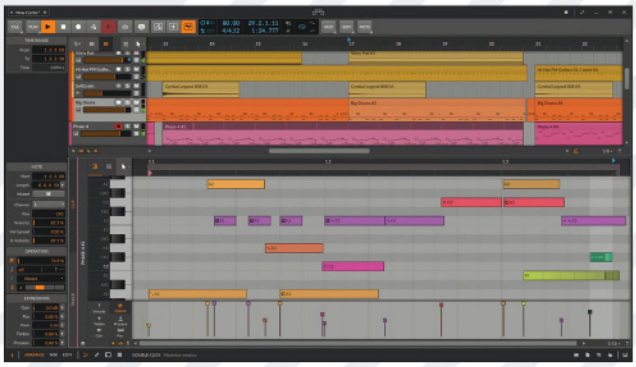
From $7.99/month

A squalid section of banging boom bap beats. Golden and modern eras are nodded to, with that MPC crunch and 12-bit grit to the fore. You get some sick drums and grubby hat patterns, and plenty of Dilla-style samples to rub up against them. The 198 loops, 15 presets and 141 one-shots have a filthy funk flavour, and everything shakes and shimmies in the right places. But, it's the soulful music loops that give the steamiest action, as these chunky pads and chords showcase some fine pitched and tonal shifting around the low-slung bars, sure to get your computer's core temperature running hotter. *Roy Spencer*

splice.com

VERDICT 8.0

DAWS



Bitwig Studio 4.2 $399

Full Review: FM373 (Bitwig 4)

Bitwig's 'point' updates continue to bring some of the DAW's most exciting features. This latest drop gives the effects a welcome refresh and adds a full modular sequencer.

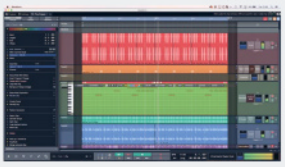
Steinberg Cubase 12 £497

Full Review: FM382

Version 12 is a solid and dependable update to Cubase, and offers some excellent new features and small, but important, update to others.

Ableton Live 11 Suite £539

Review: FM368 Not an essential upgrade for everyone, but new additions, including comping, MPE and linked tracks, have been smartly done. Live retains its place at the cutting edge.



Tracktion Waveform Pro from $119

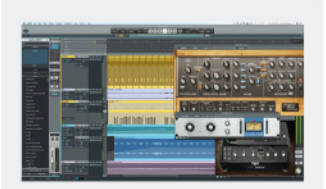
Review: FM345 Waveform is now friendlier, contains more creative tools and brings workflow ideas you'll have missed from other DAWs.

Apple Logic Pro $199

Review: FM361 Still no Logic 11, but seeing as Pro has had so many updates (it's recently dropped the 'X' too), it's hard to complain. In the latest, spatial audio tools join the party.

Reason Studios Reason 12 £499

Review: FM375 It's debateable whether the upgrade is worth it for existing Reason 11 users, but taken as a whole Reason is looking the best it has in years.



Universal Audio LUNA free

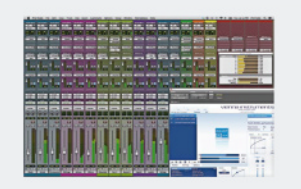
UA might not want to call LUNA a DAW, but let's be honest... Even in its version one form, this is a slick and stylish recording environment and a great freebie for Apollo users.

PreSonus Studio One 5 Pro £345

Studio One has built up quite the cult following over its decade of existence, and with good reason – this is a powerful, modern DAW.

Image-Line FL Studio €89

Review: FM334 Over 20 years since it first appeared, Image-Line's FL Studio is a powerful and inspirational application – and it's a welcome addition to the Mac realm too!



Avid Pro Tools from £25 p/m

Pro Tools has now caught up with other DAWs, bringing in a fast workflow to match its power. It still only runs AAX plugins, and there are alternative subscription payment models.

MUSIC PRODUCER'S GUIDE TO SYNTHS

ON SALE NOW

FUTURE

Ordering is easy. Go online at:

magazinesdirect.com

Or get it from selected supermarkets & newsagents

COMPACT ANALOGUE SYNTHS

Korg Minilogue £399

Full Review: FM302

Five years on and despite the existence of the XD follow-up, for our money there is still no better bang-for-your-buck analogue deal than Korg's modern classic 4-voice poly.

IK UNO Synth Pro from £399

Full Review: FM371

The UNO Synth Pro shames some much more expensive instruments, with a whole raft of functions and features you'd expect to pay twice as much for.

Behringer TD-3 £95

Say what you want about Behringer and their run of unofficial 'tributes', but this little acid box does a convincing 303 impression for less than £100, which is hard to argue with.

Moog DFAM £510

The compact semi-modulars of Moog's Mother series are all winners, but this oddball two-oscillator percussion instrument remains a favourite of the range.

Erica Bassline DB-01 €460

Review: FM359 A powerful sequencer and plenty of unique features make this much more than just another Bassline-clone.

Arturia MiniBrute 2S £575

Review: FM328 The second coming of 'Brute sees it take on an expanded synth engine and semi-modular architecture. The sequencer-focused 2S is our favourite.

Korg Minilogue XD £565

Review: FM341 The Minilogue XD bridges the gap between the analogue sounds of the original and modern digital touches of the Prologue.

Dreadbox Typhon £315

This compact monosynth is more than just another budget analogue. It pairs its classic analogue elements with a handy onboard sequencer and digital effects from Sinevibes.

Korg Monologue £250

The cheapest entry in Korg's winning 'Logue' range, this is a smart, well-built monosynth with a few neat touches including (Aphex Twin-approved) micro-tuning capabilities.

Korg Volca Modular £140

It can be a little fiddly at times, but this Buchla-influenced, pocket-sized modular synth is one of the most eccentric and creative instruments at this price point.

soothe2

soothe harshness, save time

SPIFF

transient control, oek-style

YOUR SEARCH FOR THE PERFECT HEADPHONES IS OVER

NTH-100

PROFESSIONAL OVER-EAR HEADPHONES

RØDE

Find out more at rode.com/nth-100

The Choice of Today's Creative Generation.™

Exclusively distributed in the UK and Ireland by Source • T: 020 8962 5080 • W: sourcedistribution.co.uk/rode

9021

9000